



SEQUENCE LISTING

TECH CENTER 1600/2900

DEC 27 2001

RECEIVED

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<120> Novel Proteins and Nucleic Acids Encoding Same

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<140> 09/800,321

<141> 2001-03-05

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<150> 60/221,942

<151> 2000-07-31

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<212> DNA

<213> Homo sapiens

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Asn Leu Ser Leu Leu Asp Leu Cys Tyr Thr Thr Cys Thr Val Pro Gln
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Phe Leu Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Val Glu Thr  
180 185 190

Thr Ala Asn Glu Ala Glu Leu Phe Leu Val Ser Glu Leu Phe His Leu  
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Ile Pro Leu Thr Leu Ile Leu Ile Ser Tyr Ala Phe Ile Val Arg Ala  
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Cys Gly Ser His Leu Ile Val Val Ser Leu Phe Tyr Ser Thr Ala Val  
245 250 255

Ser Val Tyr Leu Gln Pro Pro Ser Pro Ser Ser Lys Asp Gln Gly Lys  
260 265 270

Met Val Ser Leu Phe Tyr Gly Ile Ile Ala Pro Met Leu Asn Pro Leu  
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				85					90					95	
Cys	Val	Ala	Gln	Leu	Phe	Ile	Phe	Leu	Ala	Leu	Gly	Ala	Thr	Glu	Tyr
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		115						120				125			
Pro	Leu	His	Tyr	Ser	Val	Ile	Met	His	Gln	Arg	Leu	Cys	Leu	Gln	Leu
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Thr	Ala	Asn	Glu	Ala	Glu	Leu	Phe	Leu	Val	Ser	Glu	Leu	Phe	His	Leu
		195					200					205			
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Cys	Gly	Ser	His	Leu	Ile	Val	Val	Ser	Leu	Phe	Tyr	Ser	Thr	Ala	Val
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Ser	Val	Tyr	Leu	Gln	Pro	Pro	Ser	Pro	Ser	Ser	Lys	Asp	Gln	Gly	Lys
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 35 40 45  
 Ser Arg Leu Asp Thr Lys Leu His Thr Pro Met Tyr Phe Phe Leu Thr  
 50 55 60  
 Asn Leu Ser Leu Leu Asp Leu Cys Tyr Thr Thr Cys Thr Val Pro Gln  
 65 70 75 80  
 Met Leu Val Asn Leu Cys Ser Ile Arg Lys Val Ile Ser Tyr Arg Gly  
 85 90 95  
 Cys Val Ala Gln Leu Phe Ile Phe Leu Ala Leu Gly Ala Thr Glu Tyr  
 100 105 110  
 Leu Leu Leu Ala Val Met Ser Phe Asp Arg Phe Val Ala Ile Cys Arg  
 115 120 125  
 Pro Leu His Tyr Ser Val Ile Met His Gln Arg Leu Cys Leu Gln Leu  
 130 135 140  
 Ala Ala Ala Ser Trp Val Thr Gly Phe Ser Asn Ser Val Trp Leu Ser

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Phe	Leu	Cys	Glu	Val	Pro	Ala	Leu	Leu	Lys	Leu	Ser	Cys	Val	Glu	Thr
			180					185					190		
Thr	Ala	Asn	Glu	Ala	Glu	Leu	Phe	Leu	Val	Ser	Glu	Leu	Phe	His	Leu
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Ile	Pro	Leu	Thr	Leu	Ile	Leu	Ile	Ser	Tyr	Ala	Phe	Ile	Val	Arg	Ala
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Cys	Gly	Ser	His	Leu	Ile	Val	Val	Ser	Leu	Phe	Tyr	Ser	Thr	Ala	Val
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Ser	Val	Tyr	Leu	Gln	Pro	Pro	Ser	Pro	Ser	Ser	Lys	Asp	Arg	Gly	Lys
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Met	Val	Ser	Leu	Phe	Tyr	Gly	Ile	Ile	Ala	Pro	Met	Leu	Asn	Pro	Leu
	275						280					285			
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Ile Ile Ile Arg Leu Asn Ser Lys Leu His Thr Ile Met Tyr Phe Phe  
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65 70 75 80

Pro Lys Leu Leu Glu Asn Leu Val Val Glu Tyr Arg Thr Ile Ser Phe  
85 90 95

Ser Gly Cys Ile Met Gln Phe Cys Phe Ala Cys Ile Phe Gly Val Thr  
100 105 110

Glu Thr Phe Met Leu Ala Ala Met Ala Tyr Asp Arg Phe Val Ala Val  
115 120 125

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130 135 140

Leu Leu Val Ala Gly Ser Tyr Thr Trp Gly Ile Val Cys Ser Leu Ile  
145 150 155 160

Leu Thr Tyr Phe Leu Leu Asp Leu Ser Phe Cys Glu Ser Thr Phe Ile  
165 170 175

Asn Asn Phe Ile Cys Asp His Ser Val Ile Val Ser Ala Ser Tyr Ser  
180 185 190

Asp Pro Tyr Ile Ser Gln Arg Leu Cys Phe Ile Ile Ala Ile Phe Asn  
195 200 205

Glu Val Ser Ser Leu Ile Ile Ile Leu Thr Ser Tyr Met Leu Ile Phe  
210 215 220

Thr Thr Ile Met Lys Met Arg Ser Ala Ser Gly Arg Gln Lys Thr Phe  
225 230 235 240

Ser Thr Cys Ala Ser His Leu Thr Ala Ile Thr Ile Phe His Gly Thr  
245 250 255

Ile Leu Phe Leu Tyr Cys Val Pro Asn Pro Lys Thr Ser Ser Leu Ile  
260 265 270

Val Thr Val Ala Ser Val Phe Tyr Thr Val Ala Ile Pro Met Leu Asn  
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 35 40 45  
 Ile Ile Ile Arg Leu Asn Ser Lys Leu His Thr Ile Met Tyr Phe Phe  
 50 55 60  
 Leu Ser His Leu Ser Leu Thr Asp Phe Cys Phe Ser Thr Val Val Thr  
 65 70 75 80  
 Pro Lys Leu Leu Glu Asn Leu Val Val Glu Tyr Arg Thr Ile Ser Phe  
 85 90 95  
 Ser Gly Cys Ile Met Gln Phe Cys Phe Ala Cys Ile Phe Gly Val Thr  
 100 105 110  
 Gly Thr Phe Met Leu Ala Ala Met Ala Tyr Asp Arg Phe Val Ala Val  
 115 120 125  
 Cys Lys Pro Leu Leu Tyr Thr Thr Ile Met Ser Gln Lys Leu Cys Ala  
 130 135 140  
 Leu Leu Val Ala Gly Ser Tyr Thr Trp Gly Ile Val Cys Ser Leu Ile  
 145 150 155 160



Leu Thr Tyr Phe Leu Leu Asp Leu Ser Phe Cys Glu Ser Thr Phe Ile  
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                           180                          185                          190  
 Asp Pro Tyr Ile Ser Gln Arg Leu Cys Phe Ile Ile Ala Ile Phe Asn  
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 Glu Val Ser Ser Leu Ile Ile Ile Leu Thr Ser Tyr Met Leu Ile Phe  
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 Thr Thr Ile Met Lys Met Arg Ser Ala Ser Gly Arg Gln Lys Thr Phe  
   225                          230                          235                          240  
 Ser Thr Cys Ala Ser His Leu Thr Ala Ile Thr Ile Phe His Gly Thr  
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 Ile Leu Phe Leu Tyr Cys Val Pro Asn Pro Lys Thr Ser Ser Leu Ile  
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 Pro Leu Ile Tyr Ser Leu Arg Asn Lys Asp Ile Asn Asn Met Phe Glu  
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 <212> PRT  
 <213> Homo sapiens

Met 1	Met 2	Ala 3	Ser 4	Glu 5	Arg 6	Asn 7	Gln 8	Ser 9	Ser 10	Thr 11	Pro 12	Thr 13	Phe 14	Ile 15	Leu 16
Leu 17	Gly 18	Phe 19	Ser 20	Glu 21	Tyr 22	Pro 23	Glu 24	Ile 25	Gln 26	Val 27	Pro 28	Leu 29	Phe 30	Leu 31	Val 32
Phe 33	Leu 34	Phe 35	Val 36	Tyr 37	Thr 38	Val 39	Thr 40	Val 41	Val 42	Gly 43	Asn 44	Leu 45	Gly 46	Met 47	Ile 48
Ile 49	Ile 50	Ile 51	Arg 52	Leu 53	Asn 54	Ser 55	Lys 56	Leu 57	His 58	Thr 59	Ile 60	Met 61	Tyr 62	Phe 63	Phe 64
Leu 65	Ser 66	His 67	Leu 68	Ser 69	Leu 70	Thr 71	Asp 72	Phe 73	Cys 74	Phe 75	Ser 76	Thr 77	Val 78	Val 79	Thr 80
Pro 81	Lys 82	Leu 83	Leu 84	Glu 85	Asn 86	Leu 87	Val 88	Val 89	Glu 90	Tyr 91	Arg 92	Thr 93	Ile 94	Ser 95	Phe 96
Ser 97	Gly 98	Cys 99	Ile 100	Met 101	Gln 102	Phe 103	Cys 104	Phe 105	Ala 106	Cys 107	Ile 108	Phe 109	Gly 110	Val 111	Thr 112
Gly 113	Thr 114	Phe 115	Met 116	Leu 117	Ala 118	Ala 119	Met 120	Ala 121	Tyr 122	Asp 123	Arg 124	Phe 125	Val 126	Val 127	Val 128
Cys 129	Lys 130	Pro 131	Leu 132	Leu 133	Tyr 134	Thr 135	Thr 136	Ile 137	Met 138	Ser 139	Gln 140	Lys 141	Leu 142	Cys 143	Ala 144
Leu 145	Leu 146	Val 147	Ala 148	Gly 149	Ser 150	Tyr 151	Thr 152	Trp 153	Gly 154	Ile 155	Val 156	Cys 157	Ser 158	Leu 159	Ile 160
Leu 161	Thr 162	Tyr 163	Phe 164	Leu 165	Leu 166	Asp 167	Leu 168	Ser 169	Phe 170	Cys 171	Glu 172	Ser 173	Thr 174	Phe 175	Ile 176
Asn 177	Asn 178	Phe 179	Ile 180	Cys 181	Asp 182	His 183	Ser 184	Val 185	Ile 186	Val 187	Ser 188	Ala 189	Ser 190	Tyr 191	Ser 192
Asp 193	Pro 194	Tyr 195	Ile 196	Ser 197	Gln 198	Arg 199	Leu 200	Cys 201	Phe 202	Ile 203	Ile 204	Ala 205	Ile 206	Phe 207	Asn 208
Glu 209	Val 210	Ser 211	Ser 212	Leu 213	Ile 214	Ile 215	Ile 216	Leu 217	Thr 218	Ser 219	Tyr 220	Met 221	Leu 222	Ile 223	Phe 224
Thr 225	Thr 226	Ile 227	Met 228	Lys 229	Met 230	Arg 231	Ser 232	Ala 233	Ser 234	Gly 235	Arg 236	Gln 237	Lys 238	Thr 239	Phe 240
Ser 241	Thr 242	Cys 243	Ala 244	Ser 245	His 246	Leu 247	Thr 248	Ala 249	Ile 250	Thr 251	Ile 252	Phe 253	His 254	Gly 255	Thr 256
Ile 257	Leu 258	Phe 259	Leu 260	Tyr 261	Cys 262	Val 263	Pro 264	Asn 265	Pro 266	Lys 267	Thr 268	Ser 269	Ser 270	Leu 271	Ile 272
Val 273	Thr 274	Val 275	Ala 276	Ser 277	Val 278	Phe 279	Tyr 280	Thr 281	Val 282	Ala 283	Ile 284	Pro 285	Met 286	Leu 287	Asn 288
Pro 289	Leu 290	Ile 291	Tyr 292	Ser 293	Leu 294	Arg 295	Asn 296	Lys 297	Asp 298	Ile 299	Asn 300	Asn 301	Met 302	Phe 303	Glu 304
Lys 305	Leu 306	Val 307	Val 308	Thr 309	Lys 310	Leu 311	Ile 312	Tyr 313	His 314						

<210> 13  
 <211> 954  
 <212> DNA  
 <213> Homo sapiens

<400> 13  
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 ttttcagaat acccagaaat ccagggtcca ctctttctgg ttttcttggt cgtctacaca 120  
 gtcactgtag tggggaactt gggcatgata ataatcatca gactcaattc aaaactccat 180  
 acaatcatgt actttttcct tagtcacttg tccttgacag acttctgttt ttccactgta 240  
 gttacaccta aactgttga gaacttggt gtggaatata gaaccatctc tttctctggt 300  
 tgcacatgc aattttgttt tgcttgcat tttggagtga caggaacttt catgttagca 360  
 ggcattggctt atgaccgttt tgtggtagtt tgtaaaccct tgctgtatac cactattatg 420  
 tctcagaagc tctgtgctct tctggtggct gggtcctata catgggggat agtgtgctcc 480  
 ctgataactca catattttct tcttgactta tcgttttggt aatctacctt cataaataat 540  
 tttatctgtg accactctgt aattgtttct gcctcctact cagacccta tatcagccag 600  
 aggctatgct ttattattgc catattcaat gaggtgagca gcctaattat cattctgaca 660  
 tcatatatgc ttattttcac taccattatg aagatgcgat ctgcaagtgg gcgccagaaa 720  
 actttctcca cctgtgcctc ccacctgaca gccatcacta tcttccatgg aactatcctt 780  
 ttcttttact gtgttcctaa tcctaaaact tctagcctca tagttacagt ggcttctgtg 840  
 ttttacacag tggcgattcc aatgctgaac ccattgatct acagccttag gaacaaagac 900  
 atcaataaca tgtttgaaaa attagttgtc accaaattga tttaccactg aata 954

<210> 14  
 <211> 314  
 <212> PRT  
 <213> Homo sapiens

<400> 14  
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 Leu Gly Phe Ser Glu Tyr Pro Glu Ile Gln Val Pro Leu Phe Leu Val  
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 Phe Leu Phe Val Tyr Thr Val Thr Val Val Gly Asn Leu Gly Met Ile  
 35 40 45  
 Ile Ile Ile Arg Leu Asn Ser Lys Leu His Thr Ile Met Tyr Phe Phe  
 50 55 60  
 Leu Ser His Leu Ser Leu Thr Asp Phe Cys Phe Ser Thr Val Val Thr  
 65 70 75 80  
 Pro Lys Leu Leu Glu Asn Leu Val Val Glu Tyr Arg Thr Ile Ser Phe  
 85 90 95  
 Ser Gly Cys Ile Met Gln Phe Cys Phe Ala Cys Ile Phe Gly Val Thr  
 100 105 110  
 Gly Thr Phe Met Leu Ala Ala Met Ala Tyr Asp Arg Phe Val Val Val  
 115 120 125  
 Cys Lys Pro Leu Leu Tyr Thr Thr Ile Met Ser Gln Lys Leu Cys Ala  
 130 135 140  
 Leu Leu Val Ala Gly Ser Tyr Thr Trp Gly Ile Val Cys Ser Leu Ile  
 145 150 155 160

Leu Thr Tyr Phe Leu Leu Asp Leu Ser Phe Cys Glu Ser Thr Phe Ile  
 165 170 175  
 Asn Asn Phe Ile Cys Asp His Ser Val Ile Val Ser Ala Ser Tyr Ser  
 180 185 190  
 Asp Pro Tyr Ile Ser Gln Arg Leu Cys Phe Ile Ile Ala Ile Phe Asn  
 195 200 205  
 Glu Val Ser Ser Leu Ile Ile Ile Leu Thr Ser Tyr Met Leu Ile Phe  
 210 215 220  
 Thr Thr Ile Met Lys Met Arg Ser Ala Ser Gly Arg Gln Lys Thr Phe  
 225 230 235 240  
 Ser Thr Cys Ala Ser His Leu Thr Ala Ile Thr Ile Phe His Gly Thr  
 245 250 255  
 Ile Leu Phe Leu Tyr Cys Val Pro Asn Pro Lys Thr Ser Ser Leu Ile  
 260 265 270  
 Val Thr Val Ala Ser Val Phe Tyr Thr Val Ala Ile Pro Met Leu Asn  
 275 280 285  
 Pro Leu Ile Tyr Ser Leu Arg Asn Lys Asp Ile Asn Asn Met Phe Glu  
 290 295 300  
 Lys Leu Val Val Thr Lys Leu Ile Tyr His  
 305 310

<210> 15  
 <211> 960  
 <212> DNA  
 <213> Homo sapiens

<400> 15  
 ctaacaacaa ccatgtcatt agctgaagga aatcagagtt ctggagccgt atttaccctc 60  
 ttgggcttct cagaatatgc agacctccag gttcctctgt tcctgggtctt cctgaccatc 120  
 tacacaatca ctgtattggg aaacctgggc atgatcatga tcatcaggat caaccccaaa 180  
 ctccacaccc gcatgtactt ttctctcagc cacttgctct ttgttgattt ctgttattcc 240  
 accacagtta caccaaact gctggagaac ttggttgtgg aagacagAAC catctccttc 300  
 acaggatgca tcatgcaatt ctctctggcg tgtatatgtg cagtggcaga aacattcatg 360  
 ctggcagtga tggcctatga tagatacgtg gcagtgtgta accctttgct ctacacagtt 420  
 gtcagggtccc agaaactctg tgcatacatta gtggcagggc cctacacatg ggggtataatc 480  
 tcttctctga cactcaccta ttctctcttg tcattatcct tctgtgggtc taacatcatc 540  
 aataattttg tctgtgagca ctctgtcatc atctctgtct cctgctctga cccctacatc 600  
 agccaaatgc tttgttttgt cattgcaata ttcaatgagg tgagcagctt gggagtcatc 660  
 ctactacct atattttcat ctttattgct gtcataaaaa tgccttctgc tgttgggcac 720  
 caaaaagctt tctctacctg tgcttccac ctgactgcca tcactatttt ccacgggact 780  
 gtctgtttcc tttattgtgt acccaactcc aaaaactcat ggctcatagt caaagtaggt 840  
 tctgtgtttt atacagtcac catccccacg ttgaacctt taacctacag cctcaggaac 900  
 aaagacgtga aagagagtgt tcgaaagtta atgaatcact caatacaatt ttgttaaaga 960

<210> 16  
 <211> 314  
 <212> PRT  
 <213> Homo sapiens

<400> 16

Met	Ser	Leu	Ala	Glu	Gly	Asn	Gln	Ser	Ser	Gly	Ala	Val	Phe	Thr	Leu	1	5	10	15
Leu	Gly	Phe	Ser	Glu	Tyr	Ala	Asp	Leu	Gln	Val	Pro	Leu	Phe	Leu	Val	20	25	30	
Phe	Leu	Thr	Ile	Tyr	Thr	Ile	Thr	Val	Leu	Gly	Asn	Leu	Gly	Met	Ile	35	40	45	
Met	Ile	Ile	Arg	Ile	Asn	Pro	Lys	Leu	His	Thr	Arg	Met	Tyr	Phe	Phe	50	55	60	
Leu	Ser	His	Leu	Ser	Phe	Val	Asp	Phe	Cys	Tyr	Ser	Thr	Thr	Val	Thr	65	70	75	80
Pro	Lys	Leu	Leu	Glu	Asn	Leu	Val	Val	Glu	Asp	Arg	Thr	Ile	Ser	Phe	85	90	95	
Thr	Gly	Cys	Ile	Met	Gln	Phe	Phe	Leu	Ala	Cys	Ile	Cys	Ala	Val	Ala	100	105	110	
Glu	Thr	Phe	Met	Leu	Ala	Val	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Val	115	120	125	
Cys	Asn	Pro	Leu	Leu	Tyr	Thr	Val	Val	Arg	Ser	Gln	Lys	Leu	Cys	Ala	130	135	140	
Ser	Leu	Val	Ala	Gly	Pro	Tyr	Thr	Trp	Gly	Ile	Ile	Ser	Ser	Leu	Thr	145	150	155	160
Leu	Thr	Tyr	Phe	Leu	Leu	Ser	Leu	Ser	Phe	Cys	Gly	Ser	Asn	Ile	Ile	165	170	175	
Asn	Asn	Phe	Val	Cys	Glu	His	Ser	Val	Ile	Ile	Ser	Val	Ser	Cys	Ser	180	185	190	
Asp	Pro	Tyr	Ile	Ser	Gln	Met	Leu	Cys	Phe	Val	Ile	Ala	Ile	Phe	Asn	195	200	205	
Glu	Val	Ser	Ser	Leu	Gly	Val	Ile	Leu	Thr	Thr	Tyr	Ile	Phe	Ile	Phe	210	215	220	
Ile	Ala	Val	Ile	Lys	Met	Pro	Ser	Ala	Val	Gly	His	Gln	Lys	Ala	Phe	225	230	235	240
Ser	Thr	Cys	Ala	Ser	His	Leu	Thr	Ala	Ile	Thr	Ile	Phe	His	Gly	Thr	245	250	255	
Val	Leu	Phe	Leu	Tyr	Cys	Val	Pro	Asn	Ser	Lys	Asn	Ser	Trp	Leu	Ile	260	265	270	
Val	Lys	Val	Gly	Ser	Val	Phe	Tyr	Thr	Val	Ile	Ile	Pro	Thr	Leu	Asn	275	280	285	
Pro	Leu	Thr	Tyr	Ser	Leu	Arg	Asn	Lys	Asp	Val	Lys	Glu	Ser	Val	Arg	290	295	300	
Lys	Leu	Met	Asn	His	Ser	Ile	Gln	Phe	Cys	305	310								

<210> 17  
 <211> 968  
 <212> DNA  
 <213> Homo sapiens

<400> 17  
 gggaaacatg caaaaccaa gctttgtaac tgagtttgtc ctctgggac tttcacagaa 60  
 tccaaatgtt caggaaatag tatttgttgt atttttgttt gtctacattg caactgttgg 120  
 gggcaacatg ctaattgtag taaccattct cagcagccct gctcttctgg tgtctcctat 180  
 gtacttcttc ttgggcttcc tgtccttcct ggatgcgtgc ttctcatctg tcatcacccc 240  
 aaagatgatt gtagactccc tctatgtgac aaaaaccatc tcttttgaag gctgcatgat 300  
 gcagctcttt gctgaacact tctttgctgg ggtggagggtg attgtcctca cagccatggc 360  
 ctatgatcgt tatgtggcca ttgcaagcc ctgcattac tcttctatca tgaacaggag 420  
 gctctgtggc attctgatgg gggtagcctg gacagggggc ctcttgcatc ccatgataca 480  
 aattcttttt actttccagc ttcccttttg tggccccaat gtcataatc actttatgtg 540  
 tgacttgtac ccgttactgg agcttgctg cactgatact cacatctttg gcctcatggg 600  
 ggtcatcaac agtgggttta tctgcatcat aaacttctcc ttgttgcttg tctcctatgc 660  
 tgtcatcttg ctctctctga gaacacacag ttctgaaggc cgctggaaaag ctctctccac 720  
 ctgtggatct cacattgctg ttgtgatttt gttctttgtc ccatgcatat ttgtatatac 780  
 acgacctcca tctgcttttt cccttgacaa aatggcggca atattttata tcatcttaaa 840  
 tcccttgctc aatcctttga ttacacttt caggaataag gaagtaaaac aggccatgag 900  
 gagaatatgg aacagactga tgggtggttc tgatgagaaa gaaaatatta aactttaaaa 960  
 aatccaaa 968

<210> 18  
 <211> 316  
 <212> PRT  
 <213> Homo sapiens

<400> 18  
 Met Gln Asn Gln Ser Phe Val Thr Glu Phe Val Leu Leu Gly Leu Ser  
 1 5 10 15  
 Gln Asn Pro Asn Val Gln Glu Ile Val Phe Val Val Phe Leu Phe Val  
 20 25 30  
 Tyr Ile Ala Thr Val Gly Gly Asn Met Leu Ile Val Val Thr Ile Leu  
 35 40 45  
 Ser Ser Pro Ala Leu Leu Val Ser Pro Met Tyr Phe Phe Leu Gly Phe  
 50 55 60  
 Leu Ser Phe Leu Asp Ala Cys Phe Ser Ser Val Ile Thr Pro Lys Met  
 65 70 75 80  
 Ile Val Asp Ser Leu Tyr Val Thr Lys Thr Ile Ser Phe Glu Gly Cys  
 85 90 95  
 Met Met Gln Leu Phe Ala Glu His Phe Phe Ala Gly Val Glu Val Ile  
 100 105 110  
 Val Leu Thr Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys Pro  
 115 120 125  
 Leu His Tyr Ser Ser Ile Met Asn Arg Arg Leu Cys Gly Ile Leu Met  
 130 135 140  
 Gly Val Ala Trp Thr Gly Gly Leu Leu His Ser Met Ile Gln Ile Leu  
 145 150 155 160

Phe Thr Phe Gln Leu Pro Phe Cys Gly Pro Asn Val Ile Asn His Phe  
 165 170 175  
 Met Cys Asp Leu Tyr Pro Leu Leu Glu Leu Ala Cys Thr Asp Thr His  
 180 185 190  
 Ile Phe Gly Leu Met Val Val Ile Asn Ser Gly Phe Ile Cys Ile Ile  
 195 200 205  
 Asn Phe Ser Leu Leu Leu Val Ser Tyr Ala Val Ile Leu Leu Ser Leu  
 210 215 220  
 Arg Thr His Ser Ser Glu Gly Arg Trp Lys Ala Leu Ser Thr Cys Gly  
 225 230 235 240  
 Ser His Ile Ala Val Val Ile Leu Phe Phe Val Pro Cys Ile Phe Val  
 245 250 255  
 Tyr Thr Arg Pro Pro Ser Ala Phe Ser Leu Asp Lys Met Ala Ala Ile  
 260 265 270  
 Phe Tyr Ile Ile Leu Asn Pro Leu Leu Asn Pro Leu Ile Tyr Thr Phe  
 275 280 285  
 Arg Asn Lys Glu Val Lys Gln Ala Met Arg Arg Ile Trp Asn Arg Leu  
 290 295 300  
 Met Val Val Ser Asp Glu Lys Glu Asn Ile Lys Leu  
 305 310 315

<210> 19  
 <211> 968  
 <212> DNA  
 <213> Homo sapiens

<400> 19  
 gggaaacatg caaaaccaa gctttgtaac tgagtttgtc ctctgaggac tttcacagaa 60  
 tccaaatggt caggaaatag tatttgttgt atttttgttt gtctacattg caactgttgg 120  
 gggcaacatg ctaattgtag taaccattct cagcagccct gctcttctgg tgtctcctat 180  
 gtacttcttc ttgggcttcc tgtccttctt ggatgcgtgc ttctcatctg tcatcaccoc 240  
 aaagatgatt gtagactccc tctatgtgac aaagaccatc tcttttgaag gctgcatgat 300  
 gcagctcttt gctgaacact tctttgctgg ggtggagggtg attgtcctca cagccatggc 360  
 ctatgatcgt tatgtggcca tttgcaagcc cttgcattac tcttctatca tgaacaggag 420  
 gctctgtggc attctgatgg gggtagcctg gacagggggc ctcttgcatc ccatgataca 480  
 aattcttttt actttccagc ttcccttttg tggccccaat gtcataatc actttatgtg 540  
 tgacttgtag ccgttactgg agcttgctg cactgatact cacatctttg gcctcatggt 600  
 ggtcatcaac agtgggttta tctgcatcat aaacttctcc ttgttgcttg tctcctatgc 660  
 tgtcatcttg ctctctctga gaacacacag ttctgaaggg cgctggaaag ctctctccac 720  
 ctgtggatct cacattgctg ttgtgatttt gttctttgtc ccatgcatat ttgtatatac 780  
 acgacctcca tctgcttttt cccttgacaa aatggcggca atattttata tcatcttaaa 840  
 tcccttgctc aatcctttga ttacacttt caggaataag gaagtaaaac aggccatgag 900  
 gagaatatgg aacagactga tgggtggttc tgatgagaaa gaaaatatta aacttttaaa 960  
 aatccaaa 968

<210> 20  
 <211> 946  
 <212> DNA  
 <213> Homo sapiens

<400> 20  
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 ccttttttga agaaaatagt gtttggttatt tttttgcgtc tctacttggg aacactggtg 120  
 ggtaatttgc taatcattat tagtgtcaag gccagccagg cacttaagaa cccaatgttc 180  
 ttcttccttt tctacttata tttatctgat acttgccctc ctacttccat agcccctaga 240  
 atgattgtgg atgccctttt gaagaagaca actatctcct tcagcgagtg catgatccaa 300  
 gtcttttcat cccatgtctt tggctgcctg gagatcttca tcctcatcct cacggctgtt 360  
 gaccgctatg tggacatctg taagcccctg cactacatga ccatcataag ccagtgggtc 420  
 tgttgtgttt tgatggctgt ggcctgggtg ggatcctgtg tgcattcttt agttcagatt 480  
 tttcttgccc tgagtttgcc attctgtggc cccaatgtga tcaatcactg tttctgtgac 540  
 ttgcagccct tgttgaaaca agcctgttca gaaacctatg tggttaacct actcctgggt 600  
 tccaatagtg gggccatttg tgcagtgagt tatgtcatgc taatattctc ctatgtcatc 660  
 ttcttgcatt ctctgagaaa ccacagtgtc gaagtgataa agaaagcact ttccacatgt 720  
 gtctcccaca tcattgtggt catcttggtc tttggacctt gcatatttat gtacacatgc 780  
 cctgcaaccg tattcccat ggataagatg atagctgtat tttatacagt tggaacatct 840  
 tttctcaacc ctgtgattta cacgtggaag aatacagaag tgaaaagtgc catgaggaag 900  
 ctttgagaca agaaattgat cacagatgac aaaagataaa tgaagg 946

<210> 21  
 <211> 310  
 <212> PRT  
 <213> Homo sapiens

<400> 21  
 Met Gln Leu Asn Asn Asn Val Thr Glu Phe Ile Leu Leu Gly Leu Thr  
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 Gln Asp Pro Phe Trp Lys Lys Ile Val Phe Val Ile Phe Leu Arg Leu  
 20 25 30  
 Tyr Leu Gly Thr Leu Leu Gly Asn Leu Leu Ile Ile Ile Ser Val Lys  
 35 40 45  
 Ala Ser Gln Ala Leu Lys Asn Pro Met Phe Phe Phe Leu Phe Tyr Leu  
 50 55 60  
 Ser Leu Ser Asp Thr Cys Leu Ser Thr Ser Ile Ala Pro Arg Met Ile  
 65 70 75 80  
 Val Asp Ala Leu Leu Lys Lys Thr Thr Ile Ser Phe Ser Glu Cys Met  
 85 90 95  
 Ile Gln Val Phe Ser Ser His Val Phe Gly Cys Leu Glu Ile Phe Ile  
 100 105 110  
 Leu Ile Leu Thr Ala Val Asp Arg Tyr Val Asp Ile Cys Lys Pro Leu  
 115 120 125  
 His Tyr Met Thr Ile Ile Ser Gln Trp Val Cys Gly Val Leu Met Ala  
 130 135 140  
 Val Ala Trp Val Gly Ser Cys Val His Ser Leu Val Gln Ile Phe Leu  
 145 150 155 160  
 Ala Leu Ser Leu Pro Phe Cys Gly Pro Asn Val Ile Asn His Cys Phe  
 165 170 175  
 Cys Asp Leu Gln Pro Leu Leu Lys Gln Ala Cys Ser Glu Thr Tyr Val  
 180 185 190



Val Asn Leu Leu Leu Val Ser Asn Ser Gly Ala Ile Cys Ala Val Ser  
195 200 205

Tyr Val Met Leu Ile Phe Ser Tyr Val Ile Phe Leu His Ser Leu Arg  
210 215 220

Asn His Ser Ala Glu Val Ile Lys Lys Ala Leu Ser Thr Cys Val Ser  
225 230 235 240

His Ile Ile Val Val Ile Leu Phe Phe Gly Pro Cys Ile Phe Met Tyr  
245 250 255

Thr Cys Pro Ala Thr Val Phe Pro Met Asp Lys Met Ile Ala Val Phe  
260 265 270

Tyr Thr Val Gly Thr Ser Phe Leu Asn Pro Val Ile Tyr Thr Leu Lys  
275 280 285

Asn Thr Glu Val Lys Ser Ala Met Arg Lys Leu Trp Ser Lys Lys Leu  
290 295 300

Ile Thr Asp Asp Lys Arg  
305 310

<210> 22  
<211> 1000  
<212> DNA  
<213> Homo sapiens

<400> 22  
tataaattat gtcatttcag gtgacttata tgttctatct acactggacc atggaaaaaa 60  
gcaataatag cactttgttt attctcttgg ggttttccca aaataagaac attgaagtcc 120  
tctgctttgt attatttttg ttttgctaca ttgctatttg gatgggaaac ttactcataa 180  
tgatttctat cacgtgcacc cagctcattc accaaccat gtatttcttc ctcaattacc 240  
tctcaactctc cgacctttgc tacacatcca cagtgcaccc caaattaatg gttgacttac 300  
tggcagaaag aaagaccatt tcctataata actgtatgat acaactcttt accaccatt 360  
tttttgagg catagagatc ttcattctca cagggatggc ctatgaccgc tatgtggcca 420  
tttgcaagcc cctgcactac accattatta tgagcaggca aaagtgtaac acaatcatca 480  
tagtttggtg tactggggga tttatacatt ctgccagtca gtttcttctc accatctttg 540  
taccattttg tggcccaaag gagatagatc actacttctg tgatgtgtat cctttgctga 600  
aattggcctg ttctaataata cacatgatag gtctcttagt cattgctaata tcaggcttaa 660  
ttgctttggt gacatttggt gtcttggtgt tgtcttatgt ttttatattg tataccatca 720  
gagcatactc tgcagagaga cgcagcaaag ctcttgccac ttgtagttct catgtaattg 780  
ttgtggctct gttttttgct cctgcattgt tcatttacat tagaccggtc acaacattct 840  
cagaagataa agtgtttgcc cttttttata ccatcattgc tcccatgttc aacctctca 900  
tatacacgct gagaaacaca gagatgaaga acgccatgag gaaagtgtgg tgttgtcaaa 960  
tactcctgaa aagaaatcaa cttttctgaa ttgtttctgc 1000

<210> 23  
<211> 326  
<212> PRT  
<213> Homo sapiens

<400> 23  
Met Ser Phe Gln Val Thr Tyr Met Phe Tyr Leu His Trp Thr Met Glu  
1 5 10 15

Lys Ser Asn Asn Ser Thr Leu Phe Ile Leu Leu Gly Phe Ser Gln Asn  
20 25 30

Lys Asn Ile Glu Val Leu Cys Phe Val Leu Phe Leu Phe Cys Tyr Ile  
           35                          40                          45  
 Ala Ile Trp Met Gly Asn Leu Leu Ile Met Ile Ser Ile Thr Cys Thr  
           50                          55                          60  
 Gln Leu Ile His Gln Pro Met Tyr Phe Phe Leu Asn Tyr Leu Ser Leu  
           65                          70                          75                          80  
 Ser Asp Leu Cys Tyr Thr Ser Thr Val Thr Pro Lys Leu Met Val Asp  
                           85                          90                          95  
 Leu Leu Ala Glu Arg Lys Thr Ile Ser Tyr Asn Asn Cys Met Ile Gln  
                           100                          105                          110  
 Leu Phe Thr Thr His Phe Phe Gly Gly Ile Glu Ile Phe Ile Leu Thr  
                           115                          120                          125  
 Gly Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu His Tyr  
           130                          135                          140  
 Thr Ile Ile Met Ser Arg Gln Lys Cys Asn Thr Ile Ile Ile Val Cys  
           145                          150                          155                          160  
 Cys Thr Gly Gly Phe Ile His Ser Ala Ser Gln Phe Leu Leu Thr Ile  
                           165                          170                          175  
 Phe Val Pro Phe Cys Gly Pro Asn Glu Ile Asp His Tyr Phe Cys Asp  
                           180                          185                          190  
 Val Tyr Pro Leu Leu Lys Leu Ala Cys Ser Asn Ile His Met Ile Gly  
                           195                          200                          205  
 Leu Leu Val Ile Ala Asn Ser Gly Leu Ile Ala Leu Val Thr Phe Val  
           210                          215                          220  
 Val Leu Leu Leu Ser Tyr Val Phe Ile Leu Tyr Thr Ile Arg Ala Tyr  
           225                          230                          235                          240  
 Ser Ala Glu Arg Arg Ser Lys Ala Leu Ala Thr Cys Ser Ser His Val  
                           245                          250                          255  
 Ile Val Val Val Leu Phe Phe Ala Pro Ala Leu Phe Ile Tyr Ile Arg  
                           260                          265                          270  
 Pro Val Thr Thr Phe Ser Glu Asp Lys Val Phe Ala Leu Phe Tyr Thr  
                           275                          280                          285  
 Ile Ile Ala Pro Met Phe Asn Pro Leu Ile Tyr Thr Leu Arg Asn Thr  
           290                          295                          300  
 Glu Met Lys Asn Ala Met Arg Lys Val Trp Cys Cys Gln Ile Leu Leu  
           305                          310                          315                          320  
 Lys Arg Asn Gln Leu Phe  
                           325

<210> 24  
 <211> 868

<212> DNA  
<213> Homo sapiens

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tctgggaaat ctctcatca tgcctgacagt ttgcctgagc aacctgttta agtcacccat 180  
gtatttcttt ctacgttct tgtcttttgt ggacatttgt tactcttcag tcacagctcc 240  
caagatgatt gttgacctgt tagcaaagga caaaaccatc tcctatgtgg ggtgcatggt 300  
gcaactgctt ggagtacatt tctttgggtg cactgagatc ttcatcctta ctgtaatggc 360  
ctatgatcgt tatgtggcta tctgtaaacc cctacattat atgaccatca tgaaccggga 420  
gacatgcaat aaaatgttat tagggacgtg ggtaggtggg ttcttacct ccattatcca 480  
agtggctctg gtagtccaac tacccttttg tggaccaat gagatagatc actacttttg 540  
tgatgttcac cctgtgttga aacttgctg cacagaaaca tacattgttg gtgtgtgtgt 600  
gacagccaac agtggtacca ttgctctggg gagttttgtt atcttgctaa tctcctacag 660  
catcatccta gtttccctga gaaagcagtc agcagaaggc aggcgcaaag ccctctccac 720  
ctgtggctcc cacattgcca tggctgttat cttttcgagc ccctgtactt ttatgtacat 780  
gcgccctgat acgacctttt cagaggataa gatgggtggc gtattttaca ccattatcac 840  
tcccatgtta aatcctctga tttataca 868

<210> 25  
<211> 286  
<212> PRT  
<213> Homo sapiens

<400> 25  
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Gln Ser Pro Glu Ile Glu Lys Val Cys Phe Val Val Phe Ser Phe Phe  
20 25 30  
Tyr Ile Ile Ile Leu Leu Gly Asn Leu Leu Ile Met Leu Thr Val Cys  
35 40 45  
Leu Ser Asn Leu Phe Lys Ser Pro Met Tyr Phe Phe Leu Ser Phe Leu  
50 55 60  
Ser Phe Val Asp Ile Cys Tyr Ser Ser Val Thr Ala Pro Lys Met Ile  
65 70 75 80  
Val Asp Leu Leu Ala Lys Asp Lys Thr Ile Ser Tyr Val Gly Cys Met  
85 90 95  
Leu Gln Leu Leu Gly Val His Phe Phe Gly Cys Thr Glu Ile Phe Ile  
100 105 110  
Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu  
115 120 125  
His Tyr Met Thr Ile Met Asn Arg Glu Thr Cys Asn Lys Met Leu Leu  
130 135 140  
Gly Thr Trp Val Gly Gly Phe Leu His Ser Ile Ile Gln Val Ala Leu  
145 150 155 160  
Val Val Gln Leu Pro Phe Cys Gly Pro Asn Glu Ile Asp His Tyr Phe  
165 170 175  
Cys Asp Val His Pro Val Leu Lys Leu Ala Cys Thr Glu Thr Tyr Ile

180	185	190
Val Gly Val Val Val Thr Ala Asn Ser Gly Thr Ile Ala Leu Gly Ser		
195	200	205
Phe Val Ile Leu Leu Ile Ser Tyr Ser Ile Ile Leu Val Ser Leu Arg		
210	215	220
Lys Gln Ser Ala Glu Gly Arg Arg Lys Ala Leu Ser Thr Cys Gly Ser		
225	230	235
His Ile Ala Met Val Val Ile Phe Ser Ser Pro Cys Thr Phe Met Tyr		
245	250	255
Met Arg Pro Asp Thr Thr Phe Ser Glu Asp Lys Met Val Ala Val Phe		
260	265	270
Tyr Thr Ile Ile Thr Pro Met Leu Asn Pro Leu Ile Tyr Thr		
275	280	285

<210> 26  
 <211> 948  
 <212> DNA  
 <213> Homo sapiens

<400> 26  
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 tttaccatgc tggccaatct gttcattgtc atcaccatct cctgtagccc cacactttca 180  
 tcacccatgt acttctttct cacttactta tcctttatag atgcctccta cacctctgtc 240  
 acaacccccca aaatgatcac cgacctgtc taccagagga gaactatttc cttggctggc 300  
 tgacctgactc agctctttgt ggagcacttg ctgggaggct cagagatcat cctccttatt 360  
 gtcattggcct atgaccgcta cgtggccatc tgcaagcccc tgcactacac aaccattatg 420  
 caacaagggg tctgccacct tctggtggtg atagcctgga ttggaggcat cctgcatgcc 480  
 actgtgcaga ttcttttcat gacctacttg cccttctgtg gtcccaatgt cattgaccac 540  
 tttatgtgtg atctcttccc attgttgaaa ctgacctgca gagacaccta cagacttggg 600  
 atgctggttg cagccaacag tggagccatg tgcttgctca tcttttcct gctcgtcatc 660  
 tctacatag tcctctgag ctccctgaaa tcttatagct ctgaaggaca gcgcaaagcc 720  
 ctctccacct gtggctccca ctttactgtc gttgtactct tttttgtgcc ttgcatattc 780  
 acctacatgc atcctgtggt cacctactct gtggacaagt tgggtgactgt gttctttgca 840  
 atcctcactc ccatgttaaa tctataatt tacactgtga gaaacacaga ggtaaaaaat 900  
 gtcgtgagga gtttgttgag gaaaagagta acagtttatg cataatgg 948

<210> 27  
 <211> 311  
 <212> PRT  
 <213> Homo sapiens

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 Gly Leu Thr Gln Asn Pro His Leu Gln Lys Ile Leu Phe Ile Val Phe  
 20 25 30  
 Leu Phe Ile Phe Leu Phe Thr Met Leu Ala Asn Leu Phe Ile Val Ile  
 35 40 45  
 Thr Ile Ser Cys Ser Pro Thr Leu Ser Ser Pro Met Tyr Phe Phe Leu

50					55					60					
Thr	Tyr	Leu	Ser	Phe	Ile	Asp	Ala	Ser	Tyr	Thr	Ser	Val	Thr	Thr	Pro
65					70					75					80
Lys	Met	Ile	Thr	Asp	Leu	Leu	Tyr	Gln	Arg	Arg	Thr	Ile	Ser	Leu	Ala
				85					90					95	
Gly	Cys	Leu	Thr	Gln	Leu	Phe	Val	Glu	His	Leu	Leu	Gly	Gly	Ser	Glu
			100					105					110		
Ile	Ile	Leu	Leu	Ile	Val	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys
		115					120					125			
Lys	Pro	Leu	His	Tyr	Thr	Thr	Ile	Met	Gln	Gln	Gly	Ile	Cys	His	Leu
	130					135					140				
Leu	Val	Val	Ile	Ala	Trp	Ile	Gly	Gly	Ile	Leu	His	Ala	Thr	Val	Gln
145					150					155					160
Ile	Leu	Phe	Met	Thr	Asp	Leu	Pro	Phe	Cys	Gly	Pro	Asn	Val	Ile	Asp
				165					170					175	
His	Phe	Met	Cys	Asp	Leu	Phe	Pro	Leu	Leu	Lys	Leu	Ala	Cys	Arg	Asp
			180					185					190		
Thr	Tyr	Arg	Leu	Gly	Met	Leu	Val	Ala	Ala	Asn	Ser	Gly	Ala	Met	Cys
		195					200					205			
Leu	Leu	Ile	Phe	Ser	Leu	Leu	Val	Ile	Ser	Tyr	Ile	Val	Ile	Leu	Ser
	210					215					220				
Ser	Leu	Lys	Ser	Tyr	Ser	Ser	Glu	Gly	Gln	Arg	Lys	Ala	Leu	Ser	Thr
225					230					235					240
Cys	Gly	Ser	His	Phe	Thr	Val	Val	Val	Leu	Phe	Phe	Val	Pro	Cys	Ile
				245					250					255	
Phe	Thr	Tyr	Met	His	Pro	Val	Val	Thr	Tyr	Ser	Val	Asp	Lys	Leu	Val
			260					265					270		
Thr	Val	Phe	Phe	Ala	Ile	Leu	Thr	Pro	Met	Leu	Asn	Pro	Ile	Ile	Tyr
		275					280					285			
Thr	Val	Arg	Asn	Thr	Glu	Val	Lys	Asn	Val	Val	Arg	Ser	Leu	Leu	Arg
	290				295					300					
Lys	Arg	Val	Thr	Val	Tyr	Ala									
305					310										

<210> 28

<211> 944

<212> DNA

<213> Homo sapiens

<400> 28

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ggaaatctat tcattgtggt gactctgggt gcaagttgga gtctgagatc acctatgtac 180
ttttccctta ctctctgtgc tctcatgggt gccacctaact cttccatcac tgcccctaag 240

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atgactgtgg actcttttga gaacactacc atttcccttg aaggctgcat gacccagctc 300
tttgcagagc atttctctga tgggtgtagcg atcatccttc tcaactgtgat ggtctgtgac 360
tgctatgagg ccatcagtaa gcccctgcat gacacaacca tcatgagtc acgggtgtgg 420
ctgctgttgg tggtagaagc ttgggtgggg ggattaacac atgccacaat acagcttttt 480
tttttcatat atcaaatacc cttctgtggt cccaatatta ttgaccattt tatatgtgat 540
ttgtttccat tgttaaaact tgcttacatg gacacccaca tgctgggtct cttagtcatc 600
ctcaacagtg ggggtgatgtg tatggccatc ttccttatcc taattgcatc ctacattgtc 660
accctgtact ctctgaagtc ttgcagctcg gtaggtcgac gcaacacact ttccacctgt 720
ggctcccacc acacagtggg catcttggtc ttcgtggagt gtattttctt gtacataaga 780
cctgtgggtca cttaccccat agacaaggat atggctatct cctttactat tgttgcaccc 840
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atgtggatga aacaggggac cctaggtggt cactagctta catg 944

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<210> 29  
 <211> 309  
 <212> PRT  
 <213> Homo sapiens

<400> 29

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			20					25					30		
Tyr	Val	Thr	Thr	Val	Leu	Gly	Asn	Leu	Phe	Ile	Val	Val	Thr	Leu	Ala
		35					40					45			
Ala	Ser	Trp	Ser	Leu	Arg	Ser	Pro	Met	Tyr	Phe	Ser	Leu	Thr	Ser	Leu
	50					55					60				
Ser	Leu	Met	Gly	Ala	Thr	Tyr	Ser	Ser	Ile	Thr	Ala	Pro	Lys	Met	Thr
	65				70					75				80	
Val	Asp	Ser	Phe	Glu	Asn	Thr	Thr	Ile	Ser	Leu	Glu	Gly	Cys	Met	Thr
				85					90					95	
Gln	Leu	Phe	Ala	Glu	His	Phe	Ser	Asp	Gly	Val	Ala	Ile	Ile	Leu	Leu
			100					105					110		
Thr	Val	Met	Val	Cys	Asp	Cys	Tyr	Glu	Ala	Ile	Ser	Lys	Pro	Leu	His
		115					120					125			
Asp	Thr	Thr	Ile	Met	Ser	Pro	Arg	Val	Trp	Leu	Leu	Leu	Val	Val	Glu
	130					135					140				
Ala	Trp	Val	Gly	Gly	Leu	Thr	His	Ala	Thr	Ile	Gln	Leu	Phe	Phe	Phe
145					150					155					160
Ile	Tyr	Gln	Ile	Pro	Phe	Cys	Gly	Pro	Asn	Ile	Ile	Asp	His	Phe	Ile
				165					170					175	
Cys	Asp	Leu	Phe	Pro	Leu	Leu	Lys	Leu	Ala	Tyr	Met	Asp	Thr	His	Met
			180					185					190		
Leu	Gly	Leu	Leu	Val	Ile	Leu	Asn	Ser	Gly	Val	Met	Cys	Met	Ala	Ile
		195					200					205			
Phe	Leu	Ile	Leu	Ile	Ala	Ser	Tyr	Ile	Val	Thr	Leu	Tyr	Ser	Leu	Lys
	210					215					220				

Ser Cys Ser Ser Val Gly Arg Arg Asn Thr Leu Ser Thr Cys Gly Ser  
 225 230 235 240

His His Thr Val Val Ile Leu Phe Phe Val Glu Cys Ile Phe Leu Tyr  
 245 250 255

Ile Arg Pro Val Val Thr Tyr Pro Ile Asp Lys Asp Met Ala Ile Ser  
 260 265 270

Phe Thr Ile Val Ala Pro Met Leu Asn Pro Leu Ile Tyr Thr Leu Arg  
 275 280 285

Gly Ile Lys Val Lys Asn Ala Ile Arg Lys Met Trp Met Lys Gln Gly  
 290 295 300

Thr Leu Gly Gly His  
 305

<210> 30  
 <211> 1003  
 <212> DNA  
 <213> Homo sapiens

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 cattgacctg gtcgggctgg caggaaatgc agtcatgctc tggctcctgg gcttctgcat 180  
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 ctgcttccag attataacat tcattaattt cttcagtgac tttgttagtt ctctctccat 300  
 ccatttctct agatttgtca ccacgggtgtt gttctccgcc tgtattacag gcctgagcat 360  
 gctgagcacc atcagcaccg agcaccgcct gtccgtcctg tggcccatct ggtactgctg 420  
 ccaactgccc acacacctgt cagcgggtcat gtgtgtcctg ctctgggccc tgtccctgtt 480  
 gcagagcatc ctggagtggg tgttctgtag ctctcctgtt agtgatgttg actctgataa 540  
 ttggtgtcaa atattagatt tctcactgct tgtgtggctg atttttttat ctgtggttct 600  
 ctgtgggttc accctgggtc tgcctgtcag gatcatatgt ggatcccaga agatgccgct 660  
 gaccaggctg tatgtgacca tctgtctcac agggctgggc ttcctcttct gcagcctgcc 720  
 cctcagcatt cagttattcc tattatactg gatcgagaag gatttggatg acttaccttg 780  
 tgttgttcgt ttaatttcca ttttctgtc tgctcttaac agcagtgcc accccatcat 840  
 ttacttcttc atgggctcct ttaggcagct tcaaacagg aagaccctca agctggttct 900  
 ccagagggct ctgcaggaca tgcttgaggt ggatgaaggt ggagggcagc ttcctgagga 960  
 aaccctgaag ctgtcgggaa gcagattggg gccatgagga aga 1003

<210> 31  
 <211> 330  
 <212> PRT  
 <213> Homo sapiens

<400> 31  
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Asp Thr Glu Glu Thr His Pro His Arg Cys Gly Met Glu Val Leu Val  
 20 25 30

Leu Ile Val Leu Ile Leu Ile Ile Asp Leu Val Gly Leu Ala Gly Asn  
 35 40 45

Ala Val Met Leu Trp Leu Leu Gly Phe Cys Met His Ser Asn Thr Phe

50					55					60					
Ser	Leu	Tyr	Ile	Leu	Asn	Leu	Ala	Arg	Ala	Asp	Phe	Leu	Cys	Thr	Cys
65					70					75					80
Phe	Gln	Ile	Ile	Thr	Phe	Ile	Asn	Phe	Phe	Ser	Asp	Phe	Val	Ser	Ser
				85					90					95	
Leu	Ser	Ile	His	Phe	Ser	Arg	Phe	Val	Thr	Thr	Val	Leu	Phe	Ser	Ala
			100					105					110		
Cys	Ile	Thr	Gly	Leu	Ser	Met	Leu	Ser	Thr	Ile	Ser	Thr	Glu	His	Arg
		115					120					125			
Leu	Ser	Val	Leu	Trp	Pro	Ile	Trp	Tyr	Cys	Cys	His	Cys	Pro	Thr	His
		130					135					140			
Leu	Ser	Ala	Val	Met	Cys	Val	Leu	Leu	Trp	Ala	Leu	Ser	Leu	Leu	Gln
145					150					155					160
Ser	Ile	Leu	Glu	Trp	Met	Phe	Cys	Ser	Phe	Leu	Phe	Ser	Asp	Val	Asp
			165						170					175	
Ser	Asp	Asn	Trp	Cys	Gln	Ile	Leu	Asp	Phe	Leu	Thr	Ala	Val	Trp	Leu
			180					185					190		
Ile	Phe	Leu	Ser	Val	Val	Leu	Cys	Gly	Phe	Thr	Leu	Val	Leu	Leu	Val
		195					200					205			
Arg	Ile	Ile	Cys	Gly	Ser	Gln	Lys	Met	Pro	Leu	Thr	Arg	Leu	Tyr	Val
	210					215					220				
Thr	Ile	Leu	Leu	Thr	Gly	Leu	Val	Phe	Leu	Phe	Cys	Ser	Leu	Pro	Leu
225					230					235					240
Ser	Ile	Gln	Leu	Phe	Leu	Leu	Tyr	Trp	Ile	Glu	Lys	Asp	Leu	Asp	Asp
			245						250					255	
Leu	Pro	Cys	Val	Val	Arg	Leu	Ile	Ser	Ile	Phe	Leu	Ser	Ala	Leu	Asn
			260					265					270		
Ser	Ser	Ala	Asn	Pro	Ile	Ile	Tyr	Phe	Phe	Met	Gly	Ser	Phe	Arg	Gln
		275					280					285			
Leu	Gln	Asn	Arg	Lys	Thr	Leu	Lys	Leu	Val	Leu	Gln	Arg	Ala	Leu	Gln
	290					295					300				
Asp	Met	Leu	Glu	Val	Asp	Glu	Gly	Gly	Gly	Gln	Leu	Pro	Glu	Glu	Thr
305					310					315					320
Leu	Lys	Leu	Ser	Gly	Ser	Arg	Leu	Gly	Pro						
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<210> 32

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:



# Oligonucleotide primer

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<210> 33  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:  
Oligonucleotide primer

<400> 33  
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<210> 34  
<211> 313  
<212> PRT  
<213> Homo sapiens

<400> 34  
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20 25 30  
Ile Ser Tyr Thr Val Thr Ile Phe Gly Asn Leu Thr Ile Ile Leu Val  
35 40 45  
Ser Arg Leu Asp Thr Lys Leu His Thr Pro Met Tyr Phe Phe Leu Thr  
50 55 60  
Asn Leu Ser Leu Leu Asp Leu Cys Tyr Thr Thr Cys Thr Val Pro Gln  
65 70 75 80  
Met Leu Val Asn Leu Cys Ser Ile Arg Lys Val Ile Ser Tyr Arg Gly  
85 90 95  
Cys Val Ala Gln Leu Phe Ile Phe Leu Ala Leu Gly Ala Thr Glu Tyr  
100 105 110  
Leu Leu Leu Ala Val Met Ser Phe Asp Arg Phe Val Ala Ile Cys Arg  
115 120 125  
Pro Leu His Tyr Ser Val Ile Met His Gln Arg Leu Cys Leu Gln Leu  
130 135 140  
Ala Ala Ala Ser Trp Val Thr Gly Phe Ser Asn Ser Val Trp Leu Ser  
145 150 155 160  
Thr Leu Thr Leu Gln Leu Pro Leu Cys Asp Pro Tyr Val Ile Asp His  
165 170 175  
Phe Leu Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Val Glu Thr  
180 185 190

Thr Ala Asn Glu Ala Glu Leu Phe Leu Val Ser Glu Leu Phe His Leu  
 195 200 205  
 Ile Pro Leu Thr Leu Ile Leu Ile Ser Tyr Ala Phe Ile Val Arg Ala  
 210 215 220  
 Val Leu Arg Ile Gln Ser Ala Glu Gly Arg Gln Lys Ala Phe Gly Thr  
 225 230 235 240  
 Cys Gly Ser His Leu Ile Val Val Ser Leu Phe Tyr Ser Thr Ala Val  
 245 250 255  
 Ser Val Tyr Leu Gln Pro Pro Ser Pro Ser Ser Lys Asp Gln Gly Lys  
 260 265 270  
 Met Val Ser Leu Phe Tyr Gly Ile Ile Ala Pro Met Leu Asn Pro Leu  
 275 280 285  
 Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Glu Gly Phe Lys Arg Leu  
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 Val Ala Arg Val Phe Leu Ile Lys Lys  
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<210> 35  
 <211> 357  
 <212> PRT  
 <213> Homo sapiens

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 20 25 30  
 Phe Ser Tyr Ile Leu Thr Ile Phe Gly Asn Leu Thr Ile Ile Leu Val  
 35 40 45  
 Ser His Val Asp Phe Lys Leu His Thr Pro Met Tyr Phe Phe Leu Ser  
 50 55 60  
 Asn Leu Ser Leu Leu Asp Leu Cys Tyr Thr Thr Ser Thr Val Pro Gln  
 65 70 75 80  
 Met Leu Val Asn Ile Cys Asn Thr Arg Lys Val Ile Ser Tyr Gly Gly  
 85 90 95  
 Cys Val Ala Gln Leu Phe Ile Phe Leu Ala Leu Gly Ser Thr Glu Cys  
 100 105 110  
 Leu Leu Leu Ala Val Met Cys Phe Asp Arg Phe Val Ala Ile Cys Arg  
 115 120 125  
 Pro Leu His Tyr Ser Ile Ile Met His Gln Arg Leu Cys Phe Gln Leu  
 130 135 140  
 Ala Ala Ala Ser Trp Ile Ser Gly Phe Ser Asn Ser Val Leu Gln Ser  
 145 150 155 160

Thr Trp Thr Leu Lys Met Pro Leu Cys Gly His Lys Glu Val Asp His  
 165 170 175  
 Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Val Asp Thr  
 180 185 190  
 Thr Ala Asn Glu Ala Glu Leu Phe Phe Ile Ser Val Leu Phe Leu Leu  
 195 200 205  
 Ile Pro Val Thr Leu Ile Leu Ile Ser Tyr Ala Phe Ile Val Gln Ala  
 210 215 220  
 Val Leu Arg Ile Gln Ser Ala Glu Gly Arg Arg Lys Ala Phe Gly Thr  
 225 230 235 240  
 Cys Gly Ser His Leu Ile Val Val Ser Leu Phe Tyr Gly Thr Ala Ile  
 245 250 255  
 Ser Met Tyr Leu Gln Pro Pro Ser Pro Ser Ser Lys Asp Arg Gly Lys  
 260 265 270  
 Met Val Ser Leu Phe Cys Gly Ile Ile Ala Pro Met Leu Asn Pro Leu  
 275 280 285  
 Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Glu Ala Phe Lys Arg Leu  
 290 295 300  
 Val Ala Lys Ser Leu Leu Asn Gln Glu Ile Arg Asn Met Gln Met Ile  
 305 310 315 320  
 Ser Phe Ala Lys Asp Thr Val Leu Thr Tyr Leu Thr Asn Phe Ser Ala  
 325 330 335  
 Ser Cys Pro Ile Phe Val Ile Thr Ile Glu Asn Tyr Cys Asn Leu Pro  
 340 345 350  
 Gln Arg Lys Phe Pro  
 355

<210> 36  
 <211> 310  
 <212> PRT  
 <213> Homo sapiens

<400> 36  
 Met Asn Trp Val Asn Lys Ser Val Pro Gln Glu Phe Ile Leu Leu Val  
 1 5 10 15  
 Phe Ser Asp Gln Pro Trp Leu Glu Ile Pro Pro Phe Val Met Phe Leu  
 20 25 30  
 Phe Ser Tyr Ile Leu Thr Ile Phe Gly Asn Leu Thr Ile Ile Leu Val  
 35 40 45  
 Ser His Val Asp Phe Lys Leu His Thr Pro Met Tyr Phe Phe Leu Ser  
 50 55 60  
 Asn Leu Ser Leu Leu Asp Leu Cys Tyr Thr Thr Ser Thr Val Pro Gln  
 65 70 75 80

Met Leu Val Asn Ile Cys Asn Thr Arg Lys Val Ile Ser Tyr Gly Gly  
                     85                    90                    95  
 Cys Val Ala Gln Leu Phe Ile Phe Leu Ala Leu Gly Ser Thr Glu Cys  
                     100                    105                    110  
 Leu Leu Leu Ala Val Met Cys Phe Asp Arg Phe Val Ala Ile Cys Arg  
                     115                    120                    125  
 Pro Leu His Tyr Ser Ile Ile Met His Gln Arg Leu Cys Phe Gln Leu  
                     130                    135                    140  
 Ala Ala Ala Ser Trp Ile Ser Gly Phe Ser Asn Ser Val Leu Gln Ser  
 145                    150                    155                    160  
 Thr Trp Thr Leu Lys Met Pro Leu Cys Gly His Lys Glu Val Asp His  
                     165                    170                    175  
 Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Val Asp Thr  
                     180                    185                    190  
 Thr Ala Asn Glu Ala Glu Leu Phe Phe Ile Ser Val Leu Phe Leu Leu  
                     195                    200                    205  
 Ile Pro Val Thr Leu Ile Leu Ile Ser Tyr Ala Phe Ile Val Gln Ala  
                     210                    215                    220  
 Val Leu Arg Ile Gln Ser Ala Glu Gly Gln Arg Lys Ala Phe Gly Thr  
 225                    230                    235                    240  
 Cys Gly Ser His Leu Ile Val Val Ser Leu Phe Tyr Gly Thr Ala Ile  
                     245                    250                    255  
 Ser Met Tyr Leu Gln Pro Pro Ser Pro Ser Ser Lys Asp Arg Gly Lys  
                     260                    265                    270  
 Met Val Ser Leu Phe Cys Gly Ile Ile Ala Pro Met Leu Asn Pro Leu  
                     275                    280                    285  
 Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Glu Ala Phe Lys Arg Leu  
                     290                    295                    300  
 Val Ala Lys Ser Leu Leu  
 305                    310

<210> 37  
 <211> 357  
 <212> PRT  
 <213> Homo sapiens

<400> 37  
 Met Asn Trp Val Asn Lys Ser Val Pro Gln Glu Phe Ile Leu Leu Val  
   1                    5                    10                    15  
 Phe Ser Asp Gln Pro Trp Leu Glu Ile Pro Pro Phe Val Met Phe Leu  
                     20                    25                    30  
 Phe Ser Tyr Ile Leu Thr Ile Phe Gly Asn Leu Thr Ile Ile Leu Val  
                     35                    40                    45

Ser His Val Asp Phe Lys Leu His Thr Pro Met Tyr Phe Phe Leu Ser  
 50 55 60  
 Asn Leu Ser Leu Leu Asp Leu Cys Tyr Thr Thr Ser Thr Val Pro Gln  
 65 70 75 80  
 Met Leu Val Asn Ile Cys Asn Thr Arg Lys Val Ile Ser Tyr Gly Gly  
 85 90 95  
 Cys Val Ala Gln Leu Phe Ile Phe Leu Ala Leu Gly Ser Thr Glu Cys  
 100 105 110  
 Leu Leu Leu Ala Val Met Cys Phe Asp Arg Phe Val Ala Ile Cys Arg  
 115 120 125  
 Pro Leu His Tyr Ser Ile Ile Met His Gln Arg Leu Cys Phe Gln Leu  
 130 135 140  
 Ala Ala Ala Ser Trp Ile Ser Gly Phe Ser Asn Ser Val Leu Gln Ser  
 145 150 155 160  
 Thr Trp Thr Leu Lys Met Pro Leu Cys Gly His Lys Glu Val Asp His  
 165 170 175  
 Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Val Asp Thr  
 180 185 190  
 Thr Ala Asn Glu Ala Glu Leu Phe Phe Ile Ser Val Leu Phe Leu Leu  
 195 200 205  
 Ile Pro Val Thr Leu Ile Leu Ile Ser Tyr Ala Phe Ile Val Gln Ala  
 210 215 220  
 Val Leu Arg Ile Gln Ser Ala Glu Gly Gln Arg Lys Ala Phe Gly Thr  
 225 230 235 240  
 Cys Gly Ser His Leu Ile Val Val Ser Leu Phe Tyr Gly Thr Ala Ile  
 245 250 255  
 Ser Met Tyr Leu Gln Pro Pro Ser Pro Ser Ser Lys Asp Arg Gly Lys  
 260 265 270  
 Met Val Ser Leu Phe Cys Gly Ile Ile Ala Pro Met Leu Asn Pro Leu  
 275 280 285  
 Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Glu Ala Phe Lys Arg Leu  
 290 295 300  
 Val Ala Lys Ser Leu Leu Asn Gln Glu Ile Arg Asn Met Gln Met Ile  
 305 310 315 320  
 Ser Phe Ala Lys Asp Thr Val Leu Thr Tyr Leu Thr Asn Phe Ser Ala  
 325 330 335  
 Ser Cys Pro Ile Phe Val Ile Thr Ile Glu Asn Tyr Cys Asn Leu Pro  
 340 345 350  
 Gln Arg Lys Phe Pro  
 355

<210> 38  
<211> 280  
<212> PRT  
<213> Rattus norvegicus

<400> 38  
Met Ser Val Ala Asn Glu Ser Ile Ser Arg Glu Phe Ile Leu Leu Gly  
1 5 10 15  
Phe Ser Asp Arg Pro Trp Leu Glu Leu Pro Leu Phe Val Val Phe Leu  
20 25 30  
Val Ser Tyr Ile Leu Thr Ile Phe Gly Asn Met Met Ile Ile Leu Val  
35 40 45  
Ser Arg Leu Asp Ser Lys Leu His Thr Pro Met Tyr Phe Phe Leu Thr  
50 55 60  
Asn Leu Ser Leu Leu Asp Leu Cys Tyr Thr Thr Ser Thr Val Pro Gln  
65 70 75 80  
Met Leu Ile Asn Ile Cys Ser Thr Arg Lys Val Ile Ser Tyr Gly Gly  
85 90 95  
Cys Val Val Gln Leu Phe Ile Phe Leu Ser Leu Gly Ser Thr Glu Cys  
100 105 110  
Phe Leu Leu Gly Val Met Ser Leu Asp Arg Phe Leu Ala Ile Cys Arg  
115 120 125  
Pro Leu His Tyr Ser Val Ile Met His Gln Arg Arg Cys Leu His Leu  
130 135 140  
Ala Ala Ala Cys Trp Ile Ser Gly Phe Ser Asn Ser Val Leu Gln Ser  
145 150 155 160  
Thr Trp Thr Leu Gln Met Pro Leu Cys Gly His Lys Glu Val Asp His  
165 170 175  
Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Val Asp Thr  
180 185 190  
Thr Ala Asn Glu Ala Glu Leu Phe Phe Ile Ser Val Leu Phe Leu Leu  
195 200 205  
Ile Pro Val Thr Leu Ile Leu Ile Ser Tyr Ala Phe Ile Val Gln Ala  
210 215 220  
Val Leu Lys Ile Arg Ser Ala Glu Cys Arg Arg Lys Ala Phe Gly Thr  
225 230 235 240  
Cys Gly Ser His Leu Ile Val Val Val Leu Phe Tyr Gly Thr Ala Ile  
245 250 255  
Tyr Met Tyr Leu Gln Pro Pro Ser Pro Ser Ser Lys Asp Arg Gly Lys  
260 265 270  
Met Val Ser Leu Phe Tyr Gly Ile  
275 280

<210> 39  
<211> 377  
<212> PRT  
<213> Bos taurus

<400> 39

Gly Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln  
1 5 10 15

Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu  
20 25 30

Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly  
35 40 45

Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp  
50 55 60

Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile  
65 70 75 80

Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr  
85 90 95

Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu  
100 105 110

Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp  
115 120 125

Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser  
130 135 140

Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile  
145 150 155 160

Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val Asn Thr Lys  
165 170 175

Arg Ser Ser Arg Ala Phe Arg Ala Asn Leu Lys Ala Pro Leu Lys Gly  
180 185 190

Asn Cys Thr His Pro Glu Asp Met Lys Leu Cys Thr Val Ile Met Lys  
195 200 205

Ser Asn Gly Ser Phe Pro Val Asn Arg Arg Arg Val Glu Ala Ala Arg  
210 215 220

Arg Ala Gln Glu Leu Glu Met Glu Met Leu Ser Ser Thr Ser Pro Pro  
225 230 235 240

Glu Arg Thr Arg Tyr Ser Pro Ile Pro Pro Ser His His Gln Leu Thr  
245 250 255

Leu Pro Asp Pro Ser His His Gly Leu His Ser Thr Pro Asp Ser Pro  
260 265 270

Ala Lys Pro Glu Lys Asn Gly His Ala Lys Thr Val Asn Pro Lys Ile  
275 280 285

Ala Lys Ile Phe Glu Ile Gln Ser Met Pro Asn Gly Lys Thr Arg Thr

290	295	300
Ser Leu Lys Thr Met 305	Ser Arg Arg Lys Leu 310	Ser Gln Gln Lys Glu Lys 315 320
Lys Ala Thr Gln Met 325	Leu Ala Ile Val 330	Leu Gly Val Phe Ile Ile Cys 335
Trp Leu Pro Phe Phe Ile Thr His 340	Ile Leu Asn Ile His 345	Cys Asp Cys 350
Asn Ile Pro Pro Val Leu Tyr 355	Ser Ala Phe Thr Trp 360	Leu Gly Tyr Val 365
Asn Ser Ala Val Asn Pro 370	Ile Ile Tyr 375	

<210> 40  
 <211> 377  
 <212> PRT  
 <213> Homo sapiens

<400> 40  
 Gly Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln  
 1 5 10 15

Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu  
 20 25 30

Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly  
 35 40 45

Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp  
 50 55 60

Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile  
 65 70 75 80

Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr  
 85 90 95

Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu  
 100 105 110

Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp  
 115 120 125

Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser  
 130 135 140

Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile  
 145 150 155 160

Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val Asn Thr Lys  
 165 170 175

Arg Ser Ser Arg Ala Phe Arg Ala Asn Leu Lys Ala Pro Leu Lys Gly  
 180 185 190

Asn Cys Thr His Pro Glu Asp Met Lys Leu Cys Thr Val Ile Met Lys



195					200					205					
Ser	Asn	Gly	Ser	Phe	Pro	Val	Asn	Arg	Arg	Arg	Val	Glu	Ala	Ala	Arg
210						215					220				
Arg	Ala	Gln	Glu	Leu	Glu	Met	Glu	Met	Leu	Ser	Ser	Thr	Ser	Pro	Pro
225					230					235					240
Glu	Arg	Thr	Arg	Tyr	Ser	Pro	Ile	Pro	Pro	Ser	His	His	Gln	Leu	Thr
				245					250					255	
Leu	Pro	Asp	Pro	Ser	His	His	Gly	Leu	His	Ser	Thr	Pro	Asp	Ser	Pro
			260					265					270		
Ala	Lys	Pro	Glu	Lys	Asn	Gly	His	Ala	Lys	Thr	Val	Asn	Pro	Lys	Ile
		275					280					285			
Ala	Lys	Ile	Phe	Glu	Ile	Gln	Ser	Met	Pro	Asn	Gly	Lys	Thr	Arg	Thr
		290				295					300				
Ser	Leu	Lys	Thr	Met	Ser	Arg	Arg	Lys	Leu	Ser	Gln	Gln	Lys	Glu	Lys
305					310					315					320
Lys	Ala	Thr	Gln	Met	Leu	Ala	Ile	Val	Leu	Gly	Val	Phe	Ile	Ile	Cys
				325					330					335	
Trp	Leu	Pro	Phe	Phe	Ile	Thr	His	Ile	Leu	Asn	Ile	His	Cys	Asp	Cys
			340					345					350		
Asn	Ile	Pro	Pro	Val	Leu	Tyr	Ser	Ala	Phe	Thr	Trp	Leu	Gly	Tyr	Val
		355					360					365			
Asn	Ser	Ala	Val	Asn	Pro	Ile	Ile	Tyr							
		370				375									

<210> 41  
 <211> 203  
 <212> PRT  
 <213> Homo sapiens

<400> 41															
Gly	Asn	Leu	Thr	Ile	Ile	Leu	Val	Ser	Arg	Leu	Asp	Thr	Lys	Leu	His
1				5					10					15	
Thr	Pro	Met	Tyr	Phe	Phe	Leu	Thr	Asn	Leu	Ser	Leu	Leu	Asp	Leu	Cys
			20					25					30		
Tyr	Thr	Thr	Cys	Thr	Val	Pro	Gln	Met	Leu	Val	Asn	Leu	Cys	Ser	Ile
		35					40					45			
Arg	Lys	Val	Ile	Ser	Tyr	Arg	Gly	Cys	Val	Ala	Gln	Leu	Phe	Ile	Phe
	50					55					60				
Leu	Ala	Leu	Gly	Ala	Thr	Glu	Tyr	Leu	Leu	Leu	Ala	Val	Met	Ser	Phe
65					70					75					80
Asp	Arg	Phe	Val	Ala	Ile	Cys	Arg	Pro	Leu	His	Tyr	Ser	Val	Ile	Met
				85					90					95	
His	Gln	Arg	Leu	Cys	Leu	Gln	Leu	Ala	Ala	Ala	Ser	Trp	Val	Thr	Gly



	180		185		190
Cys Val Pro Asn Ser Lys Ser Ser Trp Leu Met Val Lys Val Ala Ser					
	195		200		205
Val Phe Tyr Thr Val Val Ile Pro					
	210		215		

<210> 43  
 <211> 210  
 <212> PRT  
 <213> Homo sapiens

<400> 43	
Phe Val Asp Phe Cys Tyr Ser Thr Thr Ile Thr Pro Lys Leu Leu Glu	
1 5 10 15	
Asn Leu Val Val Glu Asp Arg Ile Ile Ser Phe Thr Gly Cys Ile Met	
20 25 30	
Gln Phe Phe Phe Ala Cys Ile Phe Val Val Thr Glu Thr Phe Met Leu	
35 40 45	
Ala Ala Met Ala Tyr Asp Arg Phe Val Ala Val Cys Asn Pro Leu Leu	
50 55 60	
Tyr Thr Val Ala Thr Ser Gln Arg Leu Cys Ser Leu Leu Val Ala Ala	
65 70 75 80	
Ser Tyr Ser Trp Ser Leu Val Cys Ser Leu Thr Tyr Thr Tyr Phe Leu	
85 90 95	
Leu Thr Leu Ser Phe Cys Arg Thr Asn Phe Ile Asn Asn Phe Val Cys	
100 105 110	
Glu His Ala Ala Ile Val Ala Val Ser Cys Ser Asp Pro Tyr Met Ser	
115 120 125	
Gln Lys Val Ile Leu Val Ser Ala Thr Phe Asn Glu Ile Ser Ser Leu	
130 135 140	
Val Ile Ile Leu Thr Ser Tyr Ala Phe Ile Phe Ile Thr Val Met Lys	
145 150 155 160	
Met Pro Ser Thr Gly Gly Arg Lys Lys Ala Phe Ser Thr Cys Ala Ser	
165 170 175	
His Leu Thr Ala Ile Thr Ile Phe His Gly Thr Ile Leu Phe Leu Tyr	
180 185 190	
Cys Val Pro Asn Ser Lys Ser Ser Trp Leu Met Val Lys Val Ala Ser	
195 200 205	
Val Phe	
210	

<210> 44  
 <211> 210  
 <212> PRT

<213> Hylobates lar

<400> 44

Phe Val Asp Phe Cys Tyr Ser Thr Thr Ile Thr Pro Lys Leu Leu Glu  
1 5 10 15  
Asn Leu Val Val Glu Tyr Arg Thr Ile Ser Phe Thr Gly Cys Ile Met  
20 25 30  
Gln Phe Phe Leu Val Cys Ile Phe Val Gly Thr Glu Thr Phe Met Leu  
35 40 45  
Ala Val Met Ala Tyr Asp Arg Cys Val Ala Val Cys Asn Pro Leu Leu  
50 55 60  
Tyr Thr Val Ala Met Ser Gln Arg Leu Cys Ser Leu Leu Val Ala Thr  
65 70 75 80  
Ser Tyr Ser Trp Gly Ile Val Cys Phe Leu Thr Leu Thr Tyr Phe Leu  
85 90 95  
Leu Glu Leu Ser Phe Arg Gly Asn Asn Ile Ile Asn Asn Phe Val Cys  
100 105 110  
Glu His Ala Ala Ile Val Ala Val Ser Cys Ser Asp Pro Tyr Val Ser  
115 120 125  
Gln Glu Ile Thr Leu Val Ser Ala Thr Phe Asn Glu Ile Ser Ser Leu  
130 135 140  
Met Met Ile Phe Thr Ser Tyr Ala Phe Ile Phe Ile Thr Val Met Lys  
145 150 155 160  
Met Pro Ser Thr Gly Gly Arg Lys Lys Ala Phe Ser Thr Cys Ala Ser  
165 170 175  
His Leu Thr Ala Ile Thr Ile Phe His Gly Thr Ile Leu Phe Leu Tyr  
180 185 190  
Cys Val Pro Asn Ser Lys Ser Ser Trp Leu Met Val Lys Val Thr Ser  
195 200 205  
Val Phe  
210

<210> 45

<211> 280

<212> PRT

<213> Gallus gallus

<400> 45

Met Ala Glu Gly Asn His Thr Leu Ala Ser Glu Phe Ile Leu Val Gly  
1 5 10 15  
Leu Ser Asp His Pro Lys Met Lys Ala Ala Leu Phe Val Val Phe Leu  
20 25 30  
Leu Ile Tyr Val Ile Thr Phe Gln Gly Asn Leu Gly Ile Ile Ile Leu  
35 40 45

Ile Gln Gly Asp Pro Arg Leu His Thr Ser Met Tyr Phe Phe Leu Ser  
 50 55 60  
 Ser Leu Ser Val Val Asp Ile Cys Phe Ser Ser Val Ile Ala Pro Arg  
 65 70 75 80  
 Thr Leu Val Asn Phe Leu Ser Glu Arg Arg Thr Ile Ser Phe Thr Gly  
 85 90 95  
 Cys Thr Gly Gln Thr Phe Phe Tyr Ile Val Phe Val Thr Thr Glu Cys  
 100 105 110  
 Phe Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Asn  
 115 120 125  
 Pro Leu Leu Tyr Ser Thr Ile Met Thr Arg Arg Gln Cys Met Gln Leu  
 130 135 140  
 Val Val Gly Ser Tyr Ile Gly Gly Ile Leu Asn Ala Ile Ile Gln Thr  
 145 150 155 160  
 Thr Phe Ile Ile Arg Leu Pro Phe Cys Gly Ser Asn Ile Ile Asn His  
 165 170 175  
 Phe Phe Cys Asp Val Pro Pro Leu Leu Ala Leu Ser Leu Ala Ser Thr  
 180 185 190  
 Tyr Ile Ser Glu Met Ile Leu Phe Ser Leu Ala Gly Ile Ile Glu Leu  
 195 200 205  
 Ser Thr Val Thr Ser Ile Leu Val Ser Tyr Ile Phe Ile Ser Cys Ala  
 210 215 220  
 Ile Leu Arg Ile Arg Ser Ala Glu Gly Arg Gln Lys Ala Leu Ser Thr  
 225 230 235 240  
 Cys Ala Ser His Leu Thr Ala Val Thr Leu Leu Tyr Gly Thr Thr Ile  
 245 250 255  
 Phe Thr Tyr Leu Arg Pro Ser Ser Ser Tyr Ser Leu Asn Thr Asp Lys  
 260 265 270  
 Val Val Ser Val Phe Tyr Thr Val  
 275 280

<210> 46  
 <211> 332  
 <212> PRT  
 <213> Gallus gallus

<400> 46  
 Met Leu Val Leu Cys Phe Ser Ala Ser Leu Leu Ser Asn Cys Asn Cys  
 1 5 10 15  
 Val Val Met Met Ala Lys Gly Asn His Ser Ser Ile Thr Glu Phe Val  
 20 25 30  
 Leu Leu Gly Phe Ser Glu Lys Arg Ala Ile Gln Ala Val Leu Phe Met  
 35 40 45



Gly Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln  
 1 5 10 15  
 Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu  
 20 25 30  
 Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly  
 35 40 45  
 Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp  
 50 55 60  
 Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile  
 65 70 75 80  
 Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr  
 85 90 95  
 Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu  
 100 105 110  
 Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp  
 115 120 125  
 Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser  
 130 135 140  
 Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile  
 145 150 155 160  
 Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val Asn Thr Lys  
 165 170 175  
 Arg Ser Ser Arg Ala Phe Arg Ala Asn Leu Lys Ala Pro Leu Lys Gly  
 180 185 190  
 Asn Cys Thr His Pro Glu Asp Met Lys Leu Cys Thr Val Ile Met Lys  
 195 200 205  
 Ser Asn Gly Ser Phe Pro Val Asn Arg Arg Arg Val Glu Ala Ala Arg  
 210 215 220  
 Arg Ala Gln Glu Leu Glu Met Glu Met Leu Ser Ser Thr Ser Pro Pro  
 225 230 235 240  
 Glu Arg Thr Arg Tyr Ser Pro Ile Pro Pro Ser His His Gln Leu Thr  
 245 250 255  
 Leu Pro Asp Pro Ser His His Gly Leu His Ser Thr Pro Asp Ser Pro  
 260 265 270  
 Ala Lys Pro Glu Lys Asn Gly His Ala Lys Thr Val Asn Pro Lys Ile  
 275 280 285  
 Ala Lys Ile Phe Glu Ile Gln Ser Met Pro Asn Gly Lys Thr Arg Thr  
 290 295 300  
 Ser Leu Lys Thr Met Ser Arg Arg Lys Leu Ser Gln Gln Lys Glu Lys  
 305 310 315 320  
 Lys Ala Thr Gln Met Leu Ala Ile Val Leu Gly Val Phe Ile Ile Cys

	325		330		335										
Trp	Leu	Pro	Phe	Phe	Ile	Thr	His	Ile	Leu	Asn	Ile	His	Cys	Asp	Cys
			340					345					350		
Asn	Ile	Pro	Pro	Val	Leu	Tyr	Ser	Ala	Phe	Thr	Trp	Leu	Gly	Tyr	Val
		355					360					365			
Asn	Ser	Ala	Val	Asn	Pro	Ile	Ile	Tyr							
	370					375									

<210> 48  
 <211> 189  
 <212> PRT  
 <213> Homo sapiens

<400> 48																
Gly	Asn	Leu	Gly	Met	Ile	Ile	Ile	Ile	Arg	Leu	Asn	Ser	Lys	Leu	His	
1				5					10					15		
Thr	Ile	Met	Tyr	Phe	Phe	Leu	Ser	His	Leu	Ser	Leu	Thr	Asp	Phe	Cys	
			20					25					30			
Phe	Ser	Thr	Val	Val	Thr	Pro	Lys	Leu	Leu	Glu	Asn	Leu	Val	Val	Glu	
		35					40					45				
Tyr	Arg	Thr	Ile	Ser	Phe	Ser	Gly	Cys	Ile	Met	Gln	Phe	Cys	Phe	Ala	
	50					55					60					
Cys	Ile	Phe	Gly	Val	Thr	Glu	Thr	Phe	Met	Leu	Ala	Ala	Met	Ala	Tyr	
65					70					75					80	
Asp	Arg	Phe	Val	Ala	Val	Cys	Lys	Pro	Leu	Leu	Tyr	Thr	Thr	Ile	Met	
				85					90					95		
Ser	Gln	Lys	Leu	Cys	Ala	Leu	Leu	Val	Ala	Gly	Ser	Tyr	Thr	Trp	Gly	
			100					105					110			
Ile	Val	Cys	Ser	Leu	Ile	Leu	Thr	Tyr	Phe	Leu	Leu	Asp	Leu	Ser	Phe	
		115					120					125				
Cys	Glu	Ser	Thr	Phe	Ile	Asn	Asn	Phe	Ile	Cys	Asp	His	Ser	Val	Ile	
	130					135					140					
Val	Ser	Ala	Ser	Tyr	Ser	Asp	Pro	Tyr	Ile	Ser	Gln	Arg	Leu	Cys	Phe	
145					150					155					160	
Ile	Ile	Ala	Ile	Phe	Asn	Glu	Val	Ser	Ser	Leu	Ile	Ile	Ile	Leu	Thr	
				165					170					175		
Ser	Tyr	Met	Leu	Ile	Phe	Thr	Thr	Ile	Met	Lys	Met	Arg				
			180					185								

<210> 49  
 <211> 377  
 <212> PRT  
 <213> Homo sapiens

<400> 49



Gly	Asn	Val	Leu	Val	Cys	Met	Ala	Val	Ser	Arg	Glu	Lys	Ala	Leu	Gln	1	5	10	15
Thr	Thr	Thr	Asn	Tyr	Leu	Ile	Val	Ser	Leu	Ala	Val	Ala	Asp	Leu	Leu	20	25	30	
Val	Ala	Thr	Leu	Val	Met	Pro	Trp	Val	Val	Tyr	Leu	Glu	Val	Val	Gly	35	40	45	
Glu	Trp	Lys	Phe	Ser	Arg	Ile	His	Cys	Asp	Ile	Phe	Val	Thr	Leu	Asp	50	55	60	
Val	Met	Met	Cys	Thr	Ala	Ser	Ile	Leu	Asn	Leu	Cys	Ala	Ile	Ser	Ile	65	70	75	80
Asp	Arg	Tyr	Thr	Ala	Val	Ala	Met	Pro	Met	Leu	Tyr	Asn	Thr	Arg	Tyr	85	90	95	
Ser	Ser	Lys	Arg	Arg	Val	Thr	Val	Met	Ile	Ala	Ile	Val	Trp	Val	Leu	100	105	110	
Ser	Phe	Thr	Ile	Ser	Cys	Pro	Met	Leu	Phe	Gly	Leu	Asn	Asn	Thr	Asp	115	120	125	
Gln	Asn	Glu	Cys	Ile	Ile	Ala	Asn	Pro	Ala	Phe	Val	Val	Tyr	Ser	Ser	130	135	140	
Ile	Val	Ser	Phe	Tyr	Val	Pro	Phe	Ile	Val	Thr	Leu	Leu	Val	Tyr	Ile	145	150	155	160
Lys	Ile	Tyr	Ile	Val	Leu	Arg	Arg	Arg	Arg	Lys	Arg	Val	Asn	Thr	Lys	165	170	175	
Arg	Ser	Ser	Arg	Ala	Phe	Arg	Ala	Asn	Leu	Lys	Ala	Pro	Leu	Lys	Gly	180	185	190	
Asn	Cys	Thr	His	Pro	Glu	Asp	Met	Lys	Leu	Cys	Thr	Val	Ile	Met	Lys	195	200	205	
Ser	Asn	Gly	Ser	Phe	Pro	Val	Asn	Arg	Arg	Arg	Val	Glu	Ala	Ala	Arg	210	215	220	
Arg	Ala	Gln	Glu	Leu	Glu	Met	Glu	Met	Leu	Ser	Ser	Thr	Ser	Pro	Pro	225	230	235	240
Glu	Arg	Thr	Arg	Tyr	Ser	Pro	Ile	Pro	Pro	Ser	His	His	Gln	Leu	Thr	245	250	255	
Leu	Pro	Asp	Pro	Ser	His	His	Gly	Leu	His	Ser	Thr	Pro	Asp	Ser	Pro	260	265	270	
Ala	Lys	Pro	Glu	Lys	Asn	Gly	His	Ala	Lys	Thr	Val	Asn	Pro	Lys	Ile	275	280	285	
Ala	Lys	Ile	Phe	Glu	Ile	Gln	Ser	Met	Pro	Asn	Gly	Lys	Thr	Arg	Thr	290	295	300	
Ser	Leu	Lys	Thr	Met	Ser	Arg	Arg	Lys	Leu	Ser	Gln	Gln	Lys	Glu	Lys	305	310	315	320
Lys	Ala	Thr	Gln	Met	Leu	Ala	Ile	Val	Leu	Gly	Val	Phe	Ile	Ile	Cys				

	325		330		335										
Trp	Leu	Pro	Phe	Phe	Ile	Thr	His	Ile	Leu	Asn	Ile	His	Cys	Asp	Cys
			340					345					350		
Asn	Ile	Pro	Pro	Val	Leu	Tyr	Ser	Ala	Phe	Thr	Trp	Leu	Gly	Tyr	Val
		355					360					365			
Asn	Ser	Ala	Val	Asn	Pro	Ile	Ile	Tyr							
	370					375									

<210> 50  
 <211> 196  
 <212> PRT  
 <213> Homo sapiens

<400> 50

Gly	Asn	Leu	Gly	Met	Ile	Met	Ile	Ile	Arg	Ile	Asn	Pro	Lys	Leu	His
1				5					10					15	
Thr	Arg	Met	Tyr	Phe	Phe	Leu	Ser	His	Leu	Ser	Phe	Val	Asp	Phe	Cys
		20						25					30		
Tyr	Ser	Thr	Thr	Val	Thr	Pro	Lys	Leu	Leu	Glu	Asn	Leu	Val	Val	Glu
		35					40					45			
Asp	Arg	Thr	Ile	Ser	Phe	Thr	Gly	Cys	Ile	Met	Gln	Phe	Phe	Leu	Ala
	50					55					60				
Cys	Ile	Cys	Ala	Val	Ala	Glu	Thr	Phe	Met	Leu	Ala	Val	Met	Ala	Tyr
	65				70					75					80
Asp	Arg	Tyr	Val	Ala	Val	Cys	Asn	Pro	Leu	Leu	Tyr	Thr	Val	Val	Arg
			85						90					95	
Ser	Gln	Lys	Leu	Cys	Ala	Ser	Leu	Val	Ala	Gly	Pro	Tyr	Thr	Trp	Gly
			100					105						110	
Ile	Ile	Ser	Ser	Leu	Thr	Leu	Thr	Tyr	Phe	Leu	Leu	Ser	Leu	Ser	Phe
		115					120					125			
Cys	Gly	Ser	Asn	Ile	Ile	Asn	Asn	Phe	Val	Cys	Glu	His	Ser	Val	Ile
	130					135					140				
Ile	Ser	Val	Ser	Cys	Ser	Asp	Pro	Tyr	Ile	Ser	Gln	Met	Leu	Cys	Phe
	145				150					155					160
Val	Ile	Ala	Ile	Phe	Asn	Glu	Val	Ser	Ser	Leu	Gly	Val	Ile	Leu	Thr
				165					170					175	
Thr	Tyr	Ile	Phe	Ile	Phe	Ile	Ala	Val	Ile	Lys	Met	Pro	Ser	Ala	Val
			180					185					190		
Gly	His	Gln	Lys												
		195													

<210> 51  
 <211> 308  
 <212> PRT

<213> Mus musculus

<400> 51

Met Glu Ile Pro His Asn Ile Thr Glu Phe Phe Met Leu Gly Leu Ser  
1 5 10 15

Gln Arg Pro Glu Ile Gln Arg Leu Leu Phe Val Val Phe Leu Val Ile  
20 25 30

Tyr Ala Val Thr Val Cys Gly Asn Met Leu Ile Val Val Thr Val Thr  
35 40 45

Phe Ser Ser Ser Leu Ala Ser Pro Met Tyr Phe Phe Leu Ser Asn Leu  
50 55 60

Ser Phe Ile Asp Thr Cys Tyr Ser Ser Ser Leu Ala Pro Lys Leu Ile  
65 70 75 80

Ala Asp Ser Leu Tyr Glu Gly Thr Thr Leu Ser Tyr Glu Gly Cys Met  
85 90 95

Ala Gln Leu Phe Gly Ala His Phe Leu Gly Gly Val Glu Ile Ile Leu  
100 105 110

Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu  
115 120 125

His Tyr Thr Thr Thr Met Thr Arg His Leu Cys Val Val Leu Val Ala  
130 135 140

Val Ala Trp Leu Gly Gly Phe Leu His Ser Leu Val Gln Ile Leu Leu  
145 150 155 160

Ile Phe Gln Leu Pro Phe Cys Gly Pro Asn Val Ile Asn His Phe Val  
165 170 175

Cys Asp Leu Tyr Pro Leu Leu Glu Leu Ala Cys Thr Asn Thr Tyr Val  
180 185 190

Ile Gly Leu Leu Val Val Ala Asn Ser Gly Val Ile Cys Leu Leu Asn  
195 200 205

Phe Leu Met Leu Ala Ala Ser Tyr Ile Val Ile Leu His Ser Leu Arg  
210 215 220

Ser His Ser Ala Glu Gly Arg Arg Lys Ala Leu Ser Thr Cys Gly Ala  
225 230 235 240

His Phe Thr Val Val Thr Met Phe Phe Val Pro Cys Ile Phe Ser Tyr  
245 250 255

Met Arg Pro Ser Thr Thr Leu Pro Ile Asp Lys Asn Met Ala Val Phe  
260 265 270

Tyr Gly Ile Leu Thr Pro Met Leu Asn Pro Leu Ile Tyr Thr Leu Arg  
275 280 285

Asn Glu Glu Val Lys Asp Ala Met Arg Lys Leu Phe Thr Arg Ser Glu  
290 295 300

Val Val Gly Ala

305

<210> 52  
<211> 302  
<212> PRT  
<213> Mus musculus

<400> 52

Met	Asp	Ser	Pro	Arg	Asn	Val	Thr	Glu	Phe	Phe	Met	Leu	Gly	Leu	Ser	
1				5					10					15		
Gln	Asn	Pro	Gln	Val	Gln	Arg	Met	Leu	Phe	Gly	Leu	Phe	Leu	Leu	Val	
			20					25					30			
Phe	Leu	Val	Ser	Val	Gly	Gly	Asn	Met	Leu	Ile	Ile	Ile	Thr	Ile	Thr	
		35					40						45			
Phe	Ser	Pro	Thr	Leu	Gly	Ser	Pro	Met	Tyr	Phe	Phe	Leu	Ser	Tyr	Leu	
	50					55					60					
Ser	Phe	Ile	Asp	Thr	Cys	Tyr	Ser	Ser	Cys	Met	Thr	Pro	Lys	Leu	Ile	
65					70					75					80	
Ala	Asp	Ser	Leu	His	Glu	Gly	Arg	Ala	Ile	Ser	Phe	Glu	Gly	Cys	Leu	
				85					90					95		
Ala	Gln	Phe	Phe	Val	Ala	His	Leu	Leu	Gly	Gly	Thr	Glu	Ile	Ile	Leu	
			100					105					110			
Leu	Thr	Val	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Lys	Pro	Leu	
		115					120					125				
His	Tyr	Thr	Thr	Thr	Met	Thr	Arg	His	Val	Cys	Ile	Val	Leu	Val	Ala	
	130					135					140					
Val	Ala	Trp	Leu	Gly	Gly	Ile	Leu	His	Ser	Thr	Ala	Gln	Leu	Phe	Leu	
145					150					155					160	
Val	Leu	Gln	Leu	Pro	Phe	Cys	Gly	Pro	Asn	Val	Ile	Asn	His	Phe	Val	
				165					170					175		
Cys	Asp	Leu	Tyr	Pro	Leu	Leu	Glu	Leu	Ala	Cys	Thr	Asp	Thr	Tyr	Val	
			180					185					190			
Ile	Gly	Leu	Leu	Val	Val	Ala	Asn	Ser	Gly	Val	Ile	Cys	Leu	Leu	Asn	
		195					200					205				
Phe	Leu	Met	Leu	Ala	Ala	Ser	Tyr	Ile	Val	Ile	Leu	Arg	Thr	Leu	Arg	
		210				215						220				
Ser	His	Ser	Ala	Glu	Gly	Arg	Arg	Lys	Ala	Leu	Ser	Thr	Cys	Gly	Ala	
225					230					235					240	
His	Phe	Thr	Val	Val	Ala	Leu	Phe	Phe	Val	Pro	Cys	Ile	Phe	Ile	Tyr	
				245					250					255		
Met	Arg	Pro	Ser	Ser	Thr	Leu	Ser	Ile	Asp	Lys	Ile	Val	Ala	Val	Phe	
				260				265					270			
Tyr	Cys	Ile	Leu	Thr	Pro	Met	Phe	Asn	Pro	Leu	Ile	Tyr	Thr	Leu	Arg	

275	280	285
Asn Ala Glu Val Lys Asn	Ala Met Lys Asn Leu	Trp Arg Lys
290	295	300

<210> 53  
 <211> 307  
 <212> PRT  
 <213> Rattus norvegicus

<400> 53  
 Met Gly Glu Asn Asn Asn Ile Thr Glu Phe Ile Leu Leu Gly Leu Thr  
 1 5 10 15  
 Gln Asp Pro Asp Gly Arg Lys Ala Leu Phe Val Ile Phe Phe Leu Ile  
 20 25 30  
 Tyr Ile Val Thr Met Met Gly Asn Leu Leu Ile Val Val Thr Val Ile  
 35 40 45  
 Ala Ser Pro Ser Leu Gly Ser Pro Met Tyr Phe Phe Leu Ala Ser Leu  
 50 55 60  
 Ser Leu Leu Asp Ala Leu Phe Ser Thr Ala Ile Ser Pro Lys Leu Ile  
 65 70 75 80  
 Ala Asp Leu Leu Tyr Asp Gln Lys Thr Ile Ser Phe Arg Ala Cys Met  
 85 90 95  
 Ser Gln Leu Phe Ile Glu His Leu Phe Gly Gly Val Asp Ile Val Ile  
 100 105 110  
 Leu Val Ala Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu  
 115 120 125  
 His Tyr Leu Ala Ile Met Asn Arg Arg Val Cys Ile Thr Leu Leu Ile  
 130 135 140  
 Phe Ala Trp Thr Gly Gly Phe Thr His Ser Leu Ile Gln Ile Val Phe  
 145 150 155 160  
 Val Tyr Asn Leu Pro Phe Cys Gly Pro Asn Val Ile Asp His Phe Ile  
 165 170 175  
 Cys Asp Met Ser Pro Leu Leu Val Leu Ala Cys Thr Asp Thr Tyr Phe  
 180 185 190  
 Ile Gly Leu Thr Val Ile Ala Asn Gly Gly Val Asn Cys Ile Val Ile  
 195 200 205  
 Phe Thr Leu Leu Leu Gly Ser Tyr Gly Ile Ile Leu Arg Ser Leu Lys  
 210 215 220  
 Thr Gln Ser Gln Glu Gly Arg Arg Lys Ala Leu Ser Thr Cys Ser Ser  
 225 230 235 240  
 His Ile Leu Val Val Ile Leu Phe Phe Val Pro Cys Ile Phe Met Tyr  
 245 250 255  
 Ala Arg Pro Val Tyr Asn Phe Pro Ile Asp Lys Cys Ile Thr Val Phe





<210> 56  
 <211> 377  
 <212> PRT  
 <213> Homo sapiens

<400> 56

Gly	Asn	Val	Leu	Val	Cys	Met	Ala	Val	Ser	Arg	Glu	Lys	Ala	Leu	Gln
1				5					10					15	
Thr	Thr	Thr	Asn	Tyr	Leu	Ile	Val	Ser	Leu	Ala	Val	Ala	Asp	Leu	Leu
			20					25					30		
Val	Ala	Thr	Leu	Val	Met	Pro	Trp	Val	Val	Tyr	Leu	Glu	Val	Val	Gly
		35					40					45			
Glu	Trp	Lys	Phe	Ser	Arg	Ile	His	Cys	Asp	Ile	Phe	Val	Thr	Leu	Asp
	50					55					60				
Val	Met	Met	Cys	Thr	Ala	Ser	Ile	Leu	Asn	Leu	Cys	Ala	Ile	Ser	Ile
	65				70					75					80
Asp	Arg	Tyr	Thr	Ala	Val	Ala	Met	Pro	Met	Leu	Tyr	Asn	Thr	Arg	Tyr
				85					90					95	
Ser	Ser	Lys	Arg	Arg	Val	Thr	Val	Met	Ile	Ala	Ile	Val	Trp	Val	Leu
			100					105					110		
Ser	Phe	Thr	Ile	Ser	Cys	Pro	Met	Leu	Phe	Gly	Leu	Asn	Asn	Thr	Asp
		115					120					125			
Gln	Asn	Glu	Cys	Ile	Ile	Ala	Asn	Pro	Ala	Phe	Val	Val	Tyr	Ser	Ser
	130					135					140				
Ile	Val	Ser	Phe	Tyr	Val	Pro	Phe	Ile	Val	Thr	Leu	Leu	Val	Tyr	Ile
145					150					155					160
Lys	Ile	Tyr	Ile	Val	Leu	Arg	Arg	Arg	Arg	Lys	Arg	Val	Asn	Thr	Lys
				165					170					175	
Arg	Ser	Ser	Arg	Ala	Phe	Arg	Ala	Asn	Leu	Lys	Ala	Pro	Leu	Lys	Gly
			180					185					190		
Asn	Cys	Thr	His	Pro	Glu	Asp	Met	Lys	Leu	Cys	Thr	Val	Ile	Met	Lys
		195					200					205			
Ser	Asn	Gly	Ser	Phe	Pro	Val	Asn	Arg	Arg	Arg	Val	Glu	Ala	Ala	Arg
	210					215					220				
Arg	Ala	Gln	Glu	Leu	Glu	Met	Glu	Met	Leu	Ser	Ser	Thr	Ser	Pro	Pro
225					230					235					240
Glu	Arg	Thr	Arg	Tyr	Ser	Pro	Ile	Pro	Pro	Ser	His	His	Gln	Leu	Thr
				245					250					255	
Leu	Pro	Asp	Pro	Ser	His	His	Gly	Leu	His	Ser	Thr	Pro	Asp	Ser	Pro
			260					265					270		
Ala	Lys	Pro	Glu	Lys	Asn	Gly	His	Ala	Lys	Thr	Val	Asn	Pro	Lys	Ile
		275					280					285			
Ala	Lys	Ile	Phe	Glu	Ile	Gln	Ser	Met	Pro	Asn	Gly	Lys	Thr	Arg	Thr



290	295	300
Ser Leu Lys Thr Met 305	Ser Arg Arg Lys Leu 310	Ser Gln Gln Lys Glu Lys 315 320
Lys Ala Thr Gln Met 325	Leu Ala Ile Val 330	Leu Gly Val Phe Ile Ile Cys 335
Trp Leu Pro Phe Phe 340	Ile Thr His Ile 345	Leu Asn Ile His Cys Asp Cys 350
Asn Ile Pro Pro Val 355	Leu Tyr Ser Ala 360	Phe Thr Trp Leu Gly Tyr Val 365
Asn Ser Ala Val Asn 370	Pro Ile Ile Tyr 375	

<210> 57  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

<400> 57  
 Gly Asn Met Leu Ile Val Val Thr Ile Leu Ser Ser Pro Ala Leu Leu  
 1 5 10 15  
 Val Ser Pro Met Tyr Phe Phe Leu Gly Phe Leu Ser Phe Leu Asp Ala  
 20 25 30  
 Cys Phe Ser Ser Val Ile Thr Pro Lys Met Ile Val Asp Ser Leu Tyr  
 35 40 45  
 Val Thr Lys Thr Ile Ser Phe Glu Gly Cys Met Met Gln Leu Phe Ala  
 50 55 60  
 Glu His Phe Phe Ala Gly Val Glu Val Ile Val Leu Thr Ala Met Ala  
 65 70 75 80  
 Tyr Asp Arg Tyr Val Ala Ile Cys Lys Pro Leu His Tyr Ser Ser Ile  
 85 90 95  
 Met Asn Arg Arg Leu Cys Gly Ile Leu Met Gly Val Ala Trp Thr Gly  
 100 105 110  
 Gly Leu Leu His Ser Met Ile Gln Ile Leu Phe Thr Phe Gln Leu Pro  
 115 120 125  
 Phe Cys Gly Pro Asn Val Ile Asn His Phe Met Cys Asp Leu Tyr Pro  
 130 135 140  
 Leu Leu Glu Leu Ala Cys Thr Asp Thr His Ile Phe Gly Leu Met Val  
 145 150 155 160  
 Val Ile Asn Ser Gly Phe Ile Cys Ile Ile Asn Phe Ser Leu Leu Leu  
 165 170 175  
 Val Ser Tyr Ala Val Ile Leu Leu Ser Leu Arg Thr His Ser Ser Glu  
 180 185 190

Gly

<210> 58  
<211> 264  
<212> PRT  
<213> Rattus norvegicus

<220>  
<221> VARIANT  
<222> (181)  
<223> Wherein Xaa is any amino acid as defined in the  
specification

<400> 58  
Val Cys Phe Val Leu Phe Leu Pro Val Tyr Leu Ala Thr Val Leu Gly  
1 5 10 15  
Asn Gly Leu Ile Val Val Thr Val Asn Ile Ser Lys Ser Leu Tyr Ser  
20 25 30  
Pro Met Tyr Phe Phe Leu Ser Tyr Leu Ser Leu Val Glu Ile Leu Tyr  
35 40 45  
Ser Ser Thr Val Val Pro Lys Phe Ile Thr Asp Leu Leu His Lys Ile  
50 55 60  
Lys Thr Ile Ser Leu Lys Gly Cys Leu Ala Gln Ile Phe Phe Phe His  
65 70 75 80  
Phe Phe Gly Val Thr Glu Ile Leu Trp Leu Thr Val Met Ala Tyr Asp  
85 90 95  
Arg Tyr Val Ala Ile Cys Lys Pro Leu Tyr Tyr Thr Thr Ile Met Ser  
100 105 110  
Arg Pro Ile Cys His Arg Leu Val Ala Gly Ser Trp Val Gly Gly Phe  
115 120 125  
Phe His Ser Ile Ile Gln Ile Phe Ile Thr Ile Pro Leu Pro Phe Cys  
130 135 140  
Gly Pro Asn Ile Ile Asp His Tyr Phe Cys Asp Leu His Pro Leu Phe  
145 150 155 160  
Lys Leu Ala Cys Thr Asp Thr Phe Val Val Gly Val Ile Met Phe Val  
165 170 175  
Asn Ser Gly Leu Xaa Ser Val Phe Pro Phe Leu Xaa Leu Val Ser Ser  
180 185 190  
Tyr Ile Val Ile Leu Tyr Asn Leu Arg Asn His Ser Ala Glu Gly Arg  
195 200 205  
Arg Lys Ala Leu Ser Thr Cys Ala Ser His Ile Met Val Val Val Leu  
210 215 220  
Phe Phe Gly Pro Ala Ile Phe Leu Tyr Leu Arg Pro Ala Ser Thr Tyr  
225 230 235 240  
Thr Glu Asp Lys Leu Val Ala Val Phe Tyr Thr Val Ile Thr Pro Met

	245	250	255
Met Asn Pro Ile Ile Tyr Thr Leu			
260			
<210> 59			
<211> 377			
<212> PRT			
<213> Homo sapiens			
<400> 59			
Gly Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln			
1	5	10	15
Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu			
	20	25	30
Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly			
	35	40	45
Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp			
	50	55	60
Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile			
	65	70	75
Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr			
	85	90	95
Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu			
	100	105	110
Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp			
	115	120	125
Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser			
	130	135	140
Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile			
	145	150	155
Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val Asn Thr Lys			
	165	170	175
Arg Ser Ser Arg Ala Phe Arg Ala Asn Leu Lys Ala Pro Leu Lys Gly			
	180	185	190
Asn Cys Thr His Pro Glu Asp Met Lys Leu Cys Thr Val Ile Met Lys			
	195	200	205
Ser Asn Gly Ser Phe Pro Val Asn Arg Arg Arg Val Glu Ala Ala Arg			
	210	215	220
Arg Ala Gln Glu Leu Glu Met Glu Met Leu Ser Ser Thr Ser Pro Pro			
	225	230	235
Glu Arg Thr Arg Tyr Ser Pro Ile Pro Pro Ser His His Gln Leu Thr			
	245	250	255
Leu Pro Asp Pro Ser His His Gly Leu His Ser Thr Pro Asp Ser Pro			

260					265					270					
Ala	Lys	Pro	Glu	Lys	Asn	Gly	His	Ala	Lys	Thr	Val	Asn	Pro	Lys	Ile
		275					280					285			
Ala	Lys	Ile	Phe	Glu	Ile	Gln	Ser	Met	Pro	Asn	Gly	Lys	Thr	Arg	Thr
		290				295					300				
Ser	Leu	Lys	Thr	Met	Ser	Arg	Arg	Lys	Leu	Ser	Gln	Gln	Lys	Glu	Lys
					310					315					320
Lys	Ala	Thr	Gln	Met	Leu	Ala	Ile	Val	Leu	Gly	Val	Phe	Ile	Ile	Cys
				325					330					335	
Trp	Leu	Pro	Phe	Phe	Ile	Thr	His	Ile	Leu	Asn	Ile	His	Cys	Asp	Cys
			340					345					350		
Asn	Ile	Pro	Pro	Val	Leu	Tyr	Ser	Ala	Phe	Thr	Trp	Leu	Gly	Tyr	Val
		355					360					365			
Asn	Ser	Ala	Val	Asn	Pro	Ile	Ile	Tyr							
		370				375									

<210> 60  
 <211> 188  
 <212> PRT  
 <213> Homo sapiens

<400> 60															
Val	Lys	Ala	Ser	Gln	Ala	Leu	Lys	Asn	Pro	Met	Phe	Phe	Phe	Leu	Phe
1				5					10					15	
Tyr	Leu	Ser	Leu	Ser	Asp	Thr	Cys	Leu	Ser	Thr	Ser	Ile	Ala	Pro	Arg
			20					25					30		
Met	Ile	Val	Asp	Ala	Leu	Leu	Lys	Lys	Thr	Thr	Ile	Ser	Phe	Ser	Glu
		35					40					45			
Cys	Met	Ile	Gln	Val	Phe	Ser	Ser	His	Val	Phe	Gly	Cys	Leu	Glu	Ile
	50					55					60				
Phe	Ile	Leu	Ile	Leu	Thr	Ala	Val	Asp	Arg	Tyr	Val	Asp	Ile	Cys	Lys
65					70				75					80	
Pro	Leu	His	Tyr	Met	Thr	Ile	Ile	Ser	Gln	Trp	Val	Cys	Gly	Val	Leu
			85						90					95	
Met	Ala	Val	Ala	Trp	Val	Gly	Ser	Cys	Val	His	Ser	Leu	Val	Gln	Ile
			100					105					110		
Phe	Leu	Ala	Leu	Ser	Leu	Pro	Phe	Cys	Gly	Pro	Asn	Val	Ile	Asn	His
		115					120					125			
Cys	Phe	Cys	Asp	Leu	Gln	Pro	Leu	Leu	Lys	Gln	Ala	Cys	Ser	Glu	Thr
		130				135					140				
Tyr	Val	Val	Asn	Leu	Leu	Leu	Val	Ser	Asn	Ser	Gly	Ala	Ile	Cys	Ala
145				150					155					160	
Val	Ser	Tyr	Val	Met	Leu	Ile	Phe	Ser	Tyr	Val	Ile	Phe	Leu	His	Ser

	165		170		175
Leu Arg Asn His Ser Ala Glu Val Ile Lys Lys Ala					
	180		185		

<210> 61  
 <211> 264  
 <212> PRT  
 <213> Homo sapiens  
  
 <220>  
 <221> VARIANT  
 <222> (103)  
 <223> Wherein Xaa is any amino acid as defined in the  
           specification  
  
 <400> 61

Val Cys Phe Val Leu Phe Leu Pro Val Tyr Leu Ala Thr Val Leu Gly					
1		5		10	15
Asn Gly Leu Ile Val Val Thr Val Asn Ile Ser Lys Ser Leu Tyr Ser					
	20		25		30
Pro Met Tyr Phe Phe Leu Asn Tyr Leu Ser Leu Val Glu Ile Leu Tyr					
	35		40		45
Ser Ser Thr Val Val Pro Lys Phe Ile Thr Asp Leu Leu Asn Lys Ile					
	50		55		60
Lys Thr Ile Ser Pro Lys Gly Cys Leu Ala Gln Ile Phe Phe Phe His					
	65		70		75
Phe Phe Gly Val Thr Glu Ile Leu Leu Leu Thr Val Met Ala Tyr Asp					
		85		90	95
Arg Tyr Val Ala Ile Cys Xaa Pro Leu Tyr Tyr Thr Thr Ile Met Ser					
	100		105		110
Arg Pro Lys Cys His Arg Leu Val Ala Gly Ser Trp Val Gly Gly Phe					
	115		120		125
Phe His Ser Ile Ile Gln Ile Phe Ile Thr Leu Pro Leu Pro Phe Cys					
	130		135		140
Gly Pro Asn Val Ile Asp His Tyr Phe Cys Asp Leu His Pro Leu Phe					
	145		150		155
Lys Leu Ala Cys Thr Asp Thr Phe Val Val Gly Val Ile Met Phe Val					
		165		170	175
Asn Ser Gly Leu Phe Ser Val Phe Ser Phe Leu Phe Leu Val Ser Ser					
	180		185		190
Tyr Ile Val Ile Leu Tyr Asn Leu Arg Asn His Ser Ala Glu Gly Arg					
	195		200		205
Arg Lys Ala Leu Ser Thr Cys Ala Ser His Ile Met Val Val Val Leu					
	210		215		220
Phe Phe Gly Pro Ala Ile Phe Leu Tyr Leu Arg Pro Ala Ser Thr Tyr					

225		230		235		240									
Thr	Glu	Asp	Lys	Leu	Val	Ala	Val	Phe	Tyr	Thr	Val	Ile	Thr	Pro	Met
				245					250					255	

Leu Asn Pro Ile Ile Tyr Thr Leu  
260

<210> 62  
 <211> 377  
 <212> PRT  
 <213> Homo sapiens

<400> 62  
 Gly Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln  
 1 5 10 15

Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu  
20 25 30

Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly  
35 40 45

Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp  
50 55 60

Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile  
65 70 75 80

Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr  
85 90 95

Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu  
100 105 110

Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp  
115 120 125

Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser  
130 135 140

Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile  
145 150 155 160

Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val Asn Thr Lys  
165 170 175

Arg Ser Ser Arg Ala Phe Arg Ala Asn Leu Lys Ala Pro Leu Lys Gly  
180 185 190

Asn Cys Thr His Pro Glu Asp Met Lys Leu Cys Thr Val Ile Met Lys  
195 200 205

Ser Asn Gly Ser Phe Pro Val Asn Arg Arg Arg Val Glu Ala Ala Arg  
210 215 220

Arg Ala Gln Glu Leu Glu Met Glu Met Leu Ser Ser Thr Ser Pro Pro  
225 230 235 240

Glu Arg Thr Arg Tyr Ser Pro Ile Pro Pro Ser His His Gln Leu Thr

245					250					255					
Leu	Pro	Asp	Pro	Ser	His	His	Gly	Leu	His	Ser	Thr	Pro	Asp	Ser	Pro
			260					265					270		
Ala	Lys	Pro	Glu	Lys	Asn	Gly	His	Ala	Lys	Thr	Val	Asn	Pro	Lys	Ile
		275					280					285			
Ala	Lys	Ile	Phe	Glu	Ile	Gln	Ser	Met	Pro	Asn	Gly	Lys	Thr	Arg	Thr
		290				295					300				
Ser	Leu	Lys	Thr	Met	Ser	Arg	Arg	Lys	Leu	Ser	Gln	Gln	Lys	Glu	Lys
305					310					315					320
Lys	Ala	Thr	Gln	Met	Leu	Ala	Ile	Val	Leu	Gly	Val	Phe	Ile	Ile	Cys
				325					330					335	
Trp	Leu	Pro	Phe	Phe	Ile	Thr	His	Ile	Leu	Asn	Ile	His	Cys	Asp	Cys
			340					345					350		
Asn	Ile	Pro	Pro	Val	Leu	Tyr	Ser	Ala	Phe	Thr	Trp	Leu	Gly	Tyr	Val
		355					360					365			
Asn	Ser	Ala	Val	Asn	Pro	Ile	Ile	Tyr							
		370				375									

<210> 63  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 63

Gly	Asn	Leu	Leu	Ile	Met	Ile	Ser	Ile	Thr	Cys	Thr	Gln	Leu	Ile	His
1				5					10					15	
Gln	Pro	Met	Tyr	Phe	Phe	Leu	Asn	Tyr	Leu	Ser	Leu	Ser	Asp	Leu	Cys
			20					25					30		
Tyr	Thr	Ser	Thr	Val	Thr	Pro	Lys	Leu	Met	Val	Asp	Leu	Leu	Ala	Glu
		35					40					45			
Arg	Lys	Thr	Ile	Ser	Tyr	Asn	Asn	Cys	Met	Ile	Gln	Leu	Phe	Thr	Thr
	50					55					60				
His	Phe	Phe	Gly	Gly	Ile	Glu	Ile	Phe	Ile	Leu	Thr	Gly	Met	Ala	Tyr
65					70					75					80
Asp	Arg	Tyr	Val	Ala	Ile	Cys	Lys	Pro	Leu	His	Tyr	Thr	Ile	Ile	Met
				85					90					95	
Ser	Arg	Gln	Lys	Cys	Asn	Thr	Ile	Ile	Ile	Val	Cys	Cys	Thr	Gly	Gly
			100					105					110		
Phe	Ile	His	Ser	Ala	Ser	Gln	Phe	Leu	Leu	Thr	Ile	Phe	Val	Pro	Phe
		115					120					125			
Cys	Gly	Pro	Asn	Glu	Ile	Asp	His	Tyr	Phe	Cys	Asp	Val	Tyr	Pro	Leu
	130					135					140				
Leu	Lys	Leu	Ala	Cys	Ser	Asn	Ile	His	Met	Ile	Gly	Leu	Leu	Val	Ile





260					265					270						
Ala	Lys	Pro	Glu	Lys	Asn	Gly	His	Ala	Lys	Thr	Val	Asn	Pro	Lys	Ile	
275					280					285						
Ala	Lys	Ile	Phe	Glu	Ile	Gln	Ser	Met	Pro	Asn	Gly	Lys	Thr	Arg	Thr	
290					295					300						
Ser	Leu	Lys	Thr	Met	Ser	Arg	Arg	Lys	Leu	Ser	Gln	Gln	Lys	Glu	Lys	
305					310					315					320	
Lys	Ala	Thr	Gln	Met	Leu	Ala	Ile	Val	Leu	Gly	Val	Phe	Ile	Ile	Cys	
325					330					335						
Trp	Leu	Pro	Phe	Phe	Ile	Thr	His	Ile	Leu	Asn	Ile	His	Cys	Asp	Cys	
340					345					350						
Asn	Ile	Pro	Pro	Val	Leu	Tyr	Ser	Ala	Phe	Thr	Trp	Leu	Gly	Tyr	Val	
355					360					365						
Asn	Ser	Ala	Val	Asn	Pro	Ile	Ile	Tyr								
370					375											

<210> 65  
 <211> 152  
 <212> PRT  
 <213> Homo sapiens

<400> 65

Thr	Val	Cys	Leu	Ser	Asn	Leu	Phe	Lys	Ser	Pro	Met	Tyr	Phe	Phe	Leu
1				5					10					15	
Ser	Phe	Leu	Ser	Phe	Val	Asp	Ile	Cys	Tyr	Ser	Ser	Val	Thr	Ala	Pro
		20						25					30		
Lys	Met	Ile	Val	Asp	Leu	Leu	Ala	Lys	Asp	Lys	Thr	Ile	Ser	Tyr	Val
	35						40					45			
Gly	Cys	Met	Leu	Gln	Leu	Leu	Gly	Val	His	Phe	Phe	Gly	Cys	Thr	Glu
	50					55						60			
Ile	Phe	Ile	Leu	Thr	Val	Met	Ala	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys
65					70				75					80	
Lys	Pro	Leu	His	Tyr	Met	Thr	Ile	Met	Asn	Arg	Glu	Thr	Cys	Asn	Lys
			85						90					95	
Met	Leu	Leu	Gly	Thr	Trp	Val	Gly	Gly	Phe	Leu	His	Ser	Ile	Ile	Gln
			100					105					110		
Val	Ala	Leu	Val	Val	Gln	Leu	Pro	Phe	Cys	Gly	Pro	Asn	Glu	Ile	Asp
		115					120					125			
His	Tyr	Phe	Cys	Asp	Val	His	Pro	Val	Leu	Lys	Leu	Ala	Cys	Thr	Glu
130						135					140				
Thr	Tyr	Ile	Val	Gly	Val	Val	Val								
145						150									

<210> 66  
 <211> 377  
 <212> PRT  
 <213> Homo sapiens

<400> 66

Gly	Asn	Val	Leu	Val	Cys	Met	Ala	Val	Ser	Arg	Glu	Lys	Ala	Leu	Gln
1				5					10					15	
Thr	Thr	Thr	Asn	Tyr	Leu	Ile	Val	Ser	Leu	Ala	Val	Ala	Asp	Leu	Leu
			20					25					30		
Val	Ala	Thr	Leu	Val	Met	Pro	Trp	Val	Val	Tyr	Leu	Glu	Val	Val	Gly
		35					40					45			
Glu	Trp	Lys	Phe	Ser	Arg	Ile	His	Cys	Asp	Ile	Phe	Val	Thr	Leu	Asp
	50					55					60				
Val	Met	Met	Cys	Thr	Ala	Ser	Ile	Leu	Asn	Leu	Cys	Ala	Ile	Ser	Ile
	65				70					75					80
Asp	Arg	Tyr	Thr	Ala	Val	Ala	Met	Pro	Met	Leu	Tyr	Asn	Thr	Arg	Tyr
				85					90					95	
Ser	Ser	Lys	Arg	Arg	Val	Thr	Val	Met	Ile	Ala	Ile	Val	Trp	Val	Leu
			100					105					110		
Ser	Phe	Thr	Ile	Ser	Cys	Pro	Met	Leu	Phe	Gly	Leu	Asn	Asn	Thr	Asp
		115					120					125			
Gln	Asn	Glu	Cys	Ile	Ile	Ala	Asn	Pro	Ala	Phe	Val	Val	Tyr	Ser	Ser
	130					135					140				
Ile	Val	Ser	Phe	Tyr	Val	Pro	Phe	Ile	Val	Thr	Leu	Leu	Val	Tyr	Ile
145					150					155					160
Lys	Ile	Tyr	Ile	Val	Leu	Arg	Arg	Arg	Arg	Lys	Arg	Val	Asn	Thr	Lys
				165					170					175	
Arg	Ser	Ser	Arg	Ala	Phe	Arg	Ala	Asn	Leu	Lys	Ala	Pro	Leu	Lys	Gly
			180					185					190		
Asn	Cys	Thr	His	Pro	Glu	Asp	Met	Lys	Leu	Cys	Thr	Val	Ile	Met	Lys
		195					200					205			
Ser	Asn	Gly	Ser	Phe	Pro	Val	Asn	Arg	Arg	Arg	Val	Glu	Ala	Ala	Arg
	210					215					220				
Arg	Ala	Gln	Glu	Leu	Glu	Met	Glu	Met	Leu	Ser	Ser	Thr	Ser	Pro	Pro
225					230				235						240
Glu	Arg	Thr	Arg	Tyr	Ser	Pro	Ile	Pro	Pro	Ser	His	His	Gln	Leu	Thr
				245					250					255	
Leu	Pro	Asp	Pro	Ser	His	His	Gly	Leu	His	Ser	Thr	Pro	Asp	Ser	Pro
			260					265					270		
Ala	Lys	Pro	Glu	Lys	Asn	Gly	His	Ala	Lys	Thr	Val	Asn	Pro	Lys	Ile
		275					280					285			
Ala	Lys	Ile	Phe	Glu	Ile	Gln	Ser	Met	Pro	Asn	Gly	Lys	Thr	Arg	Thr



<210> 68  
 <211> 264  
 <212> PRT  
 <213> Rattus norvegicus

<220>  
 <221> VARIANT  
 <222> (181)  
 <223> Wherein Xaa is any amino acid as defined in the  
 specification

<400> 68  
 Val Cys Phe Val Leu Phe Leu Pro Val Tyr Leu Ala Thr Val Leu Gly  
 1 5 10 15  
 Asn Gly Leu Ile Val Val Thr Val Asn Ile Ser Lys Ser Leu Tyr Ser  
 20 25 30  
 Pro Met Tyr Phe Phe Leu Ser Tyr Leu Ser Leu Val Glu Ile Leu Tyr  
 35 40 45  
 Ser Ser Thr Val Val Pro Lys Phe Ile Thr Asp Leu Leu His Lys Ile  
 50 55 60  
 Lys Thr Ile Ser Leu Lys Gly Cys Leu Ala Gln Ile Phe Phe Phe His  
 65 70 75 80  
 Phe Phe Gly Val Thr Glu Ile Leu Trp Leu Thr Val Met Ala Tyr Asp  
 85 90 95  
 Arg Tyr Val Ala Ile Cys Lys Pro Leu Tyr Tyr Thr Thr Ile Met Ser  
 100 105 110  
 Arg Pro Ile Cys His Arg Leu Val Ala Gly Ser Trp Val Gly Gly Phe  
 115 120 125  
 Phe His Ser Ile Ile Gln Ile Phe Ile Thr Ile Pro Leu Pro Phe Cys  
 130 135 140  
 Gly Pro Asn Ile Ile Asp His Tyr Phe Cys Asp Leu His Pro Leu Phe  
 145 150 155 160  
 Lys Leu Ala Cys Thr Asp Thr Phe Val Val Gly Val Ile Met Phe Val  
 165 170 175  
 Asn Ser Gly Leu Xaa Ser Val Phe Pro Phe Leu Xaa Leu Val Ser Ser  
 180 185 190  
 Tyr Ile Val Ile Leu Tyr Asn Leu Arg Asn His Ser Ala Glu Gly Arg  
 195 200 205  
 Arg Lys Ala Leu Ser Thr Cys Ala Ser His Ile Met Val Val Val Leu  
 210 215 220  
 Phe Phe Gly Pro Ala Ile Phe Leu Tyr Leu Arg Pro Ala Ser Thr Tyr  
 225 230 235 240  
 Thr Glu Asp Lys Leu Val Ala Val Phe Tyr Thr Val Ile Thr Pro Met

245										250					255				
Met	Asn	Pro	Ile	Ile	Tyr	Thr	Leu												
				260															
<210> 69																			
<211> 377																			
<212> PRT																			
<213> Homo sapiens																			
<400> 69																			
Gly	Asn	Val	Leu	Val	Cys	Met	Ala	Val	Ser	Arg	Glu	Lys	Ala	Leu	Gln				
1				5					10					15					
Thr	Thr	Thr	Asn	Tyr	Leu	Ile	Val	Ser	Leu	Ala	Val	Ala	Asp	Leu	Leu				
			20					25					30						
Val	Ala	Thr	Leu	Val	Met	Pro	Trp	Val	Val	Tyr	Leu	Glu	Val	Val	Gly				
		35					40					45							
Glu	Trp	Lys	Phe	Ser	Arg	Ile	His	Cys	Asp	Ile	Phe	Val	Thr	Leu	Asp				
	50					55					60								
Val	Met	Met	Cys	Thr	Ala	Ser	Ile	Leu	Asn	Leu	Cys	Ala	Ile	Ser	Ile				
	65				70					75					80				
Asp	Arg	Tyr	Thr	Ala	Val	Ala	Met	Pro	Met	Leu	Tyr	Asn	Thr	Arg	Tyr				
				85					90					95					
Ser	Ser	Lys	Arg	Arg	Val	Thr	Val	Met	Ile	Ala	Ile	Val	Trp	Val	Leu				
			100					105					110						
Ser	Phe	Thr	Ile	Ser	Cys	Pro	Met	Leu	Phe	Gly	Leu	Asn	Asn	Thr	Asp				
		115					120					125							
Gln	Asn	Glu	Cys	Ile	Ile	Ala	Asn	Pro	Ala	Phe	Val	Val	Tyr	Ser	Ser				
	130					135					140								
Ile	Val	Ser	Phe	Tyr	Val	Pro	Phe	Ile	Val	Thr	Leu	Leu	Val	Tyr	Ile				
	145				150					155					160				
Lys	Ile	Tyr	Ile	Val	Leu	Arg	Arg	Arg	Arg	Lys	Arg	Val	Asn	Thr	Lys				
			165						170					175					
Arg	Ser	Ser	Arg	Ala	Phe	Arg	Ala	Asn	Leu	Lys	Ala	Pro	Leu	Lys	Gly				
			180					185					190						
Asn	Cys	Thr	His	Pro	Glu	Asp	Met	Lys	Leu	Cys	Thr	Val	Ile	Met	Lys				
		195					200					205							
Ser	Asn	Gly	Ser	Phe	Pro	Val	Asn	Arg	Arg	Arg	Val	Glu	Ala	Ala	Arg				
	210					215					220								
Arg	Ala	Gln	Glu	Leu	Glu	Met	Glu	Met	Leu	Ser	Ser	Thr	Ser	Pro	Pro				
	225				230					235					240				
Glu	Arg	Thr	Arg	Tyr	Ser	Pro	Ile	Pro	Pro	Ser	His	His	Gln	Leu	Thr				
			245						250					255					
Leu	Pro	Asp	Pro	Ser	His	His	Gly	Leu	His	Ser	Thr	Pro	Asp	Ser	Pro				

260					265					270					
Ala	Lys	Pro	Glu	Lys	Asn	Gly	His	Ala	Lys	Thr	Val	Asn	Pro	Lys	Ile
		275					280					285			
Ala	Lys	Ile	Phe	Glu	Ile	Gln	Ser	Met	Pro	Asn	Gly	Lys	Thr	Arg	Thr
		290					295					300			
Ser	Leu	Lys	Thr	Met	Ser	Arg	Arg	Lys	Leu	Ser	Gln	Gln	Lys	Glu	Lys
		305					310					315			
Lys	Ala	Thr	Gln	Met	Leu	Ala	Ile	Val	Leu	Gly	Val	Phe	Ile	Ile	Cys
				325					330					335	
Trp	Leu	Pro	Phe	Phe	Ile	Thr	His	Ile	Leu	Asn	Ile	His	Cys	Asp	Cys
				340					345					350	
Asn	Ile	Pro	Pro	Val	Leu	Tyr	Ser	Ala	Phe	Thr	Trp	Leu	Gly	Tyr	Val
		355					360					365			
Asn	Ser	Ala	Val	Asn	Pro	Ile	Ile	Tyr							
		370					375								

<210> 70  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 70  
 Gly Asn Leu Phe Ile Val Val Thr Leu Ala Ala Ser Trp Ser Leu Arg  
 1 5 10 15  
 Ser Pro Met Tyr Phe Ser Leu Thr Ser Leu Ser Leu Met Gly Ala Thr  
 20 25 30  
 Tyr Ser Ser Ile Thr Ala Pro Lys Met Thr Val Asp Ser Phe Glu Asn  
 35 40 45  
 Thr Thr Ile Ser Leu Glu Gly Cys Met Thr Gln Leu Phe Ala Glu His  
 50 55 60  
 Phe Ser Asp Gly Val Ala Ile Ile Leu Leu Thr Val Met Val Cys Asp  
 65 70 75 80  
 Cys Tyr Glu Ala Ile Ser Lys Pro Leu His Asp Thr Thr Ile Met Ser  
 85 90 95  
 Pro Arg Val Trp Leu Leu Leu Val Val Glu Ala Trp Val Gly Gly Leu  
 100 105 110  
 Thr His Ala Thr Ile Gln Leu Phe Phe Phe Ile Tyr Gln Ile Pro Phe  
 115 120 125  
 Cys Gly Pro Asn Ile Ile Asp His Phe Ile Cys Asp Leu Phe Pro Leu  
 130 135 140  
 Leu Lys Leu Ala Tyr Met Asp Thr His Met Leu Gly Leu Leu Val Ile  
 145 150 155 160  
 Leu

<210> 71  
<211> 280  
<212> PRT  
<213> Mus musculus

<400> 71  
Met Asp Gln Ser Asn Met Thr Ser Leu Ala Glu Glu Lys Ala Met Asn  
1 5 10 15  
Thr Ser Ser Arg Asn Ala Ser Leu Gly Ser Ser His Pro Pro Ile Pro  
20 25 30  
Ile Val His Trp Val Ile Met Ser Ile Ser Pro Leu Gly Phe Val Glu  
35 40 45  
Asn Gly Ile Leu Leu Trp Phe Leu Cys Phe Arg Met Arg Arg Asn Pro  
50 55 60  
Phe Thr Val Tyr Ile Thr His Leu Ser Ile Ala Asp Ile Tyr Leu Leu  
65 70 75 80  
Phe Cys Ile Phe Ile Leu Ser Ile Asp Tyr Ala Leu Asp Tyr Glu Leu  
85 90 95  
Ser Ser Gly His His Tyr Thr Ile Val Thr Leu Ser Val Thr Phe Leu  
100 105 110  
Phe Gly Tyr Asn Thr Gly Leu Tyr Leu Leu Thr Ala Ile Ser Val Glu  
115 120 125  
Arg Cys Leu Ser Val Leu Tyr Pro Ile Trp Tyr Arg Cys His Arg Pro  
130 135 140  
Lys His Gln Ser Ala Phe Val Cys Ala Leu Leu Trp Ala Leu Ser Cys  
145 150 155 160  
Leu Val Thr Thr Met Glu Tyr Val Met Cys Ile Asp Ser Gly Glu Glu  
165 170 175  
Ser His Ser Arg Ser Asp Cys Arg Ala Val Ile Ile Phe Ile Ala Ile  
180 185 190  
Leu Ser Phe Leu Val Phe Thr Pro Leu Met Leu Val Ser Ser Thr Ile  
195 200 205  
Leu Val Val Lys Ile Arg Lys Asn Thr Trp Ala Ser His Ser Ser Lys  
210 215 220  
Leu Tyr Ile Val Ile Met Val Thr Ile Ile Ile Phe Leu Ile Phe Ala  
225 230 235 240  
Met Pro Met Arg Val Leu Tyr Leu Leu Tyr Tyr Glu Tyr Trp Ser Ala  
245 250 255  
Phe Gly Asn Leu His Asn Ile Ser Leu Leu Phe Ser Thr Ile Asn Ser  
260 265 270  
Ser Ala Asn Pro Phe Ile Tyr Phe

275

280

<210> 72  
 <211> 324  
 <212> PRT  
 <213> Rattus norvegicus

<400> 72

Met	Asp	Gln	Ser	Asn	Met	Thr	Ser	Phe	Ala	Glu	Glu	Lys	Ala	Met	Asn
1				5					10					15	
Thr	Ser	Ser	Arg	Asn	Ala	Ser	Leu	Gly	Thr	Ser	His	Pro	Pro	Ile	Pro
			20					25					30		
Ile	Val	His	Trp	Val	Ile	Met	Ser	Ile	Ser	Pro	Leu	Gly	Phe	Val	Glu
		35					40					45			
Asn	Gly	Ile	Leu	Leu	Trp	Phe	Leu	Cys	Phe	Arg	Met	Arg	Arg	Asn	Pro
	50					55					60				
Phe	Thr	Val	Tyr	Ile	Thr	His	Leu	Ser	Ile	Ala	Asp	Ile	Ser	Leu	Leu
	65				70					75					80
Phe	Cys	Ile	Phe	Ile	Leu	Ser	Ile	Asp	Tyr	Ala	Leu	Asp	Tyr	Glu	Leu
				85				90						95	
Ser	Ser	Gly	His	Tyr	Tyr	Thr	Ile	Val	Thr	Leu	Ser	Val	Thr	Phe	Leu
			100					105					110		
Phe	Gly	Tyr	Asn	Thr	Gly	Leu	Tyr	Leu	Leu	Thr	Ala	Ile	Ser	Val	Glu
		115					120					125			
Arg	Cys	Leu	Ser	Val	Leu	Tyr	Pro	Ile	Trp	Tyr	Arg	Cys	His	Arg	Pro
	130					135					140				
Lys	His	Gln	Ser	Ala	Phe	Val	Cys	Ala	Leu	Leu	Trp	Ala	Leu	Ser	Cys
145					150					155					160
Leu	Val	Thr	Thr	Met	Glu	Tyr	Val	Met	Cys	Ile	Asp	Ser	Gly	Glu	Glu
				165					170					175	
Ser	His	Ser	Gln	Ser	Asp	Cys	Arg	Ala	Val	Ile	Ile	Phe	Ile	Ala	Ile
			180					185					190		
Leu	Ser	Phe	Leu	Val	Phe	Thr	Pro	Leu	Met	Leu	Val	Ser	Ser	Thr	Ile
		195					200					205			
Leu	Val	Val	Lys	Ile	Arg	Lys	Asn	Thr	Trp	Ala	Ser	His	Ser	Ser	Lys
	210					215					220				
Leu	Tyr	Ile	Val	Ile	Met	Val	Thr	Ile	Ile	Ile	Phe	Leu	Ile	Phe	Ala
225					230					235					240
Met	Pro	Met	Arg	Val	Leu	Tyr	Leu	Leu	Tyr	Tyr	Glu	Tyr	Trp	Ser	Thr
				245					250					255	
Phe	Gly	Asn	Leu	His	Asn	Ile	Ser	Leu	Leu	Phe	Ser	Thr	Ile	Asn	Ser
			260					265					270		
Ser	Ala	Asn	Pro	Phe	Ile	Tyr	Phe	Phe	Val	Gly	Ser	Ser	Lys	Lys	Lys



275		280		285
Arg Phe Arg Glu Ser Leu Lys Val Val Leu Thr Arg Ala Phe Lys Asp				
290		295		300
Glu Met Gln Pro Arg Arg Gln Glu Gly Asn Gly Asn Thr Val Ser Ile				
305		310		315 320
Glu Thr Val Val				

<210> 73  
 <211> 324  
 <212> PRT  
 <213> Mus musculus

<400> 73  
 Met Asp Gln Ser Asn Met Thr Ser Leu Ala Glu Glu Lys Ala Met Asn  
 1 5 10 15  
 Thr Ser Ser Arg Asn Ala Ser Leu Gly Ser Ser His Pro Pro Ile Pro  
 20 25 30  
 Ile Val His Trp Val Ile Met Ser Ile Ser Pro Leu Gly Phe Val Glu  
 35 40 45  
 Asn Gly Ile Leu Leu Trp Phe Leu Cys Phe Arg Met Arg Arg Asn Pro  
 50 55 60  
 Phe Thr Val Tyr Ile Thr His Leu Ser Met Ala Asp Ile Ser Leu Leu  
 65 70 75 80  
 Phe Cys Ile Phe Ile Leu Ser Ile Asp Tyr Ala Leu Asp Tyr Glu Leu  
 85 90 95  
 Ser Ser Gly His His Tyr Thr Ile Val Thr Leu Ser Val Thr Phe Leu  
 100 105 110  
 Phe Gly Tyr Asn Thr Gly Leu Tyr Leu Leu Thr Ala Ile Ser Val Glu  
 115 120 125  
 Arg Cys Leu Ser Val Leu Tyr Pro Ile Trp Tyr Thr Ser His Arg Pro  
 130 135 140  
 Lys His Gln Ser Ala Phe Val Cys Ala Leu Leu Cys Ala Leu Ser Cys  
 145 150 155 160  
 Leu Val Thr Thr Met Glu Tyr Val Met Cys Ile Asp Ser Gly Glu Glu  
 165 170 175  
 Ser His Ser Arg Ser Asp Cys Arg Ala Val Ile Ile Phe Ile Ala Ile  
 180 185 190  
 Leu Ser Phe Leu Val Phe Thr Pro Leu Met Leu Val Ser Ser Ser Ile  
 195 200 205  
 Leu Val Val Lys Ile Arg Lys Asn Thr Trp Ala Ser His Ser Ser Lys  
 210 215 220  
 Leu Tyr Ile Val Ile Met Val Thr Ile Ile Ile Phe Leu Ile Phe Ala

225		230		235		240									
Met	Pro	Met	Arg	Val	Leu	Tyr	Leu	Leu	Tyr	Tyr	Glu	Tyr	Trp	Ser	Ala
				245					250					255	
Phe	Gly	Asn	Leu	His	Asn	Ile	Ser	Leu	Leu	Phe	Ser	Thr	Ile	Asn	Ser
			260					265					270		
Ser	Ala	Asn	Pro	Phe	Ile	Tyr	Phe	Phe	Val	Gly	Ser	Ser	Lys	Lys	Lys
		275					280					285			
Arg	Phe	Arg	Glu	Ser	Leu	Lys	Val	Val	Leu	Thr	Arg	Ala	Phe	Lys	Asp
	290					295					300				
Glu	Met	Gln	Pro	Arg	Arg	Gln	Glu	Gly	Asn	Gly	Asn	Thr	Val	Ser	Ile
305					310					315					320
Glu Thr Val Val															

<210> 74  
 <211> 378  
 <212> PRT  
 <213> Homo sapiens

<400> 74
Met Val Trp Gly Lys Ile Cys Trp Phe Ser Gln Arg Ala Gly Trp Thr
1 5 10 15
Val Phe Ala Glu Ser Gln Ile Ser Leu Ser Cys Ser Leu Cys Leu His
20 25 30
Ser Gly Asp Gln Glu Ala Gln Asn Pro Asn Leu Val Ser Gln Leu Cys
35 40 45
Gly Val Phe Leu Gln Asn Glu Thr Asn Glu Thr Ile His Met Gln Met
50 55 60
Ser Met Ala Val Gly Gln Gln Ala Leu Pro Leu Asn Ile Ile Ala Pro
65 70 75 80
Lys Ala Val Leu Val Ser Leu Cys Gly Val Leu Leu Asn Gly Thr Val
85 90 95
Phe Trp Leu Leu Cys Cys Gly Ala Thr Asn Pro Tyr Met Val Tyr Ile
100 105 110
Leu His Leu Val Ala Ala Asp Val Ile Tyr Leu Cys Cys Ser Ala Val
115 120 125
Gly Phe Leu Gln Val Thr Leu Leu Thr Tyr His Gly Val Val Phe Phe
130 135 140
Ile Pro Asp Phe Leu Ala Ile Leu Ser Pro Phe Ser Phe Glu Val Cys
145 150 155 160
Leu Cys Leu Leu Val Ala Ile Ser Thr Glu Arg Cys Val Cys Val Leu
165 170 175
Phe Pro Ile Trp Tyr Arg Cys His Arg Pro Lys Tyr Thr Ser Asn Val

180					185					190					
Val	Cys	Thr	Leu	Ile	Trp	Gly	Leu	Pro	Phe	Cys	Ile	Asn	Ile	Val	Lys
	195						200					205			
Ser	Leu	Phe	Leu	Thr	Tyr	Trp	Lys	His	Val	Lys	Ala	Cys	Val	Ile	Phe
	210					215					220				
Leu	Lys	Leu	Ser	Gly	Leu	Phe	His	Ala	Ile	Leu	Ser	Leu	Val	Met	Cys
225					230					235					240
Val	Ser	Ser	Leu	Thr	Leu	Leu	Ile	Arg	Phe	Leu	Cys	Cys	Ser	Gln	Gln
				245					250					255	
Gln	Lys	Ala	Thr	Arg	Val	Tyr	Ala	Val	Val	Gln	Ile	Ser	Ala	Pro	Met
			260					265					270		
Phe	Leu	Leu	Trp	Ala	Leu	Pro	Leu	Ser	Val	Ala	Pro	Leu	Ile	Thr	Asp
		275					280					285			
Phe	Lys	Met	Phe	Val	Thr	Thr	Ser	Tyr	Leu	Ile	Ser	Leu	Phe	Leu	Ile
	290					295					300				
Ile	Asn	Ser	Ser	Ala	Asn	Pro	Ile	Ile	Tyr	Phe	Phe	Val	Gly	Ser	Leu
305					310					315					320
Arg	Lys	Lys	Arg	Leu	Lys	Glu	Ser	Leu	Arg	Val	Ile	Leu	Gln	Arg	Ala
				325					330					335	
Leu	Ala	Asp	Lys	Pro	Glu	Val	Gly	Arg	Asn	Lys	Lys	Ala	Ala	Gly	Ile
			340					345					350		
Asp	Pro	Met	Glu	Gln	Pro	His	Ser	Thr	Gln	His	Val	Glu	Asn	Leu	Leu
		355					360					365			
Pro	Arg	Glu	His	Arg	Val	Asp	Val	Glu	Thr						
	370					375									

<210> 75

<211> 321

<212> PRT

<213> Mus musculus

<400> 75

Met	Glu	Pro	Leu	Ala	Met	Thr	Leu	Tyr	Pro	Leu	Glu	Ser	Thr	Gln	Pro
1				5					10					15	

Thr	Arg	Asn	Lys	Thr	Pro	Asn	Glu	Thr	Thr	Trp	Ser	Ser	Glu	His	Thr
			20					25					30		

Asp	Asp	His	Thr	Tyr	Phe	Leu	Val	Ser	Leu	Val	Ile	Cys	Ser	Leu	Gly
		35					40					45			

Leu	Ala	Gly	Asn	Gly	Leu	Leu	Ile	Trp	Phe	Leu	Ile	Phe	Cys	Ile	Lys
50						55					60				

Arg	Lys	Pro	Phe	Thr	Ile	Tyr	Ile	Leu	His	Leu	Ala	Ile	Ala	Asp	Phe
65					70					75				80	

Met	Val	Leu	Leu	Cys	Ser	Ser	Ile	Met	Lys	Leu	Val	Asn	Thr	Phe	His
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

85										90					95				
Ile	Tyr	Asn	Met	Thr	Leu	Glu	Ser	Tyr	Ala	Ile	Leu	Phe	Met	Ile	Phe				
			100					105					110						
Gly	Tyr	Asn	Thr	Gly	Leu	His	Leu	Leu	Thr	Ala	Ile	Ser	Val	Glu	Arg				
		115					120					125							
Cys	Leu	Ser	Val	Leu	Tyr	Pro	Ile	Trp	Tyr	Gln	Cys	Gln	Arg	Pro	Lys				
	130					135				140									
His	Gln	Ser	Ala	Val	Ala	Cys	Met	Leu	Leu	Trp	Ala	Leu	Ser	Val	Leu				
145					150					155					160				
Val	Ser	Gly	Leu	Glu	Asn	Phe	Phe	Cys	Ile	Leu	Glu	Val	Lys	Pro	Gln				
				165					170				175						
Phe	Pro	Glu	Cys	Arg	Tyr	Val	Tyr	Ile	Phe	Ser	Cys	Ile	Leu	Thr	Phe				
			180					185					190						
Leu	Val	Phe	Val	Pro	Leu	Met	Ile	Phe	Ser	Asn	Leu	Ile	Leu	Phe	Ile				
		195					200					205							
Gln	Val	Cys	Cys	Asn	Leu	Lys	Pro	Arg	Gln	Pro	Thr	Lys	Leu	Tyr	Val				
	210					215					220								
Ile	Ile	Met	Thr	Thr	Val	Ile	Leu	Phe	Leu	Val	Phe	Ala	Met	Pro	Met				
225					230					235					240				
Lys	Val	Leu	Leu	Ile	Ile	Gly	Tyr	Tyr	Ser	Ser	Ser	Leu	Asp	Asp	Ser				
				245					250				255						
Val	Trp	Asp	Ser	Leu	Pro	Tyr	Leu	Asn	Met	Leu	Ser	Thr	Ile	Asn	Cys				
			260					265					270						
Ser	Ile	Asn	Pro	Ile	Val	Tyr	Phe	Val	Val	Gly	Ser	Leu	Arg	Arg	Lys				
		275					280					285							
Arg	Ser	Arg	Lys	Ser	Leu	Lys	Glu	Ala	Leu	Gln	Lys	Val	Phe	Glu	Glu				
	290					295					300								
Lys	Pro	Val	Val	Ala	Ser	Arg	Glu	Asn	Val	Thr	Gln	Phe	Ser	Leu	Pro				
305					310					315					320				
Ser																			

<210> 76  
 <211> 377  
 <212> PRT  
 <213> Homo sapiens

<400> 76  
 Gly Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln  
 1 5 10 15  
 Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu  
 20 25 30  
 Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly

35					40					45					
Glu	Trp	Lys	Phe	Ser	Arg	Ile	His	Cys	Asp	Ile	Phe	Val	Thr	Leu	Asp
50						55					60				
Val	Met	Met	Cys	Thr	Ala	Ser	Ile	Leu	Asn	Leu	Cys	Ala	Ile	Ser	Ile
65					70					75					80
Asp	Arg	Tyr	Thr	Ala	Val	Ala	Met	Pro	Met	Leu	Tyr	Asn	Thr	Arg	Tyr
				85					90					95	
Ser	Ser	Lys	Arg	Arg	Val	Thr	Val	Met	Ile	Ala	Ile	Val	Trp	Val	Leu
			100					105					110		
Ser	Phe	Thr	Ile	Ser	Cys	Pro	Met	Leu	Phe	Gly	Leu	Asn	Asn	Thr	Asp
		115					120					125			
Gln	Asn	Glu	Cys	Ile	Ile	Ala	Asn	Pro	Ala	Phe	Val	Val	Tyr	Ser	Ser
130						135					140				
Ile	Val	Ser	Phe	Tyr	Val	Pro	Phe	Ile	Val	Thr	Leu	Leu	Val	Tyr	Ile
145					150					155					160
Lys	Ile	Tyr	Ile	Val	Leu	Arg	Arg	Arg	Arg	Lys	Arg	Val	Asn	Thr	Lys
				165					170					175	
Arg	Ser	Ser	Arg	Ala	Phe	Arg	Ala	Asn	Leu	Lys	Ala	Pro	Leu	Lys	Gly
			180					185					190		
Asn	Cys	Thr	His	Pro	Glu	Asp	Met	Lys	Leu	Cys	Thr	Val	Ile	Met	Lys
		195					200					205			
Ser	Asn	Gly	Ser	Phe	Pro	Val	Asn	Arg	Arg	Arg	Val	Glu	Ala	Ala	Arg
	210					215					220				
Arg	Ala	Gln	Glu	Leu	Glu	Met	Glu	Met	Leu	Ser	Ser	Thr	Ser	Pro	Pro
225					230					235					240
Glu	Arg	Thr	Arg	Tyr	Ser	Pro	Ile	Pro	Pro	Ser	His	His	Gln	Leu	Thr
				245					250					255	
Leu	Pro	Asp	Pro	Ser	His	His	Gly	Leu	His	Ser	Thr	Pro	Asp	Ser	Pro
			260					265					270		
Ala	Lys	Pro	Glu	Lys	Asn	Gly	His	Ala	Lys	Thr	Val	Asn	Pro	Lys	Ile
		275					280					285			
Ala	Lys	Ile	Phe	Glu	Ile	Gln	Ser	Met	Pro	Asn	Gly	Lys	Thr	Arg	Thr
		290				295					300				
Ser	Leu	Lys	Thr	Met	Ser	Arg	Arg	Lys	Leu	Ser	Gln	Gln	Lys	Glu	Lys
305					310					315					320
Lys	Ala	Thr	Gln	Met	Leu	Ala	Ile	Val	Leu	Gly	Val	Phe	Ile	Ile	Cys
				325					330					335	
Trp	Leu	Pro	Phe	Phe	Ile	Thr	His	Ile	Leu	Asn	Ile	His	Cys	Asp	Cys
			340					345					350		
Asn	Ile	Pro	Pro	Val	Leu	Tyr	Ser	Ala	Phe	Thr	Trp	Leu	Gly	Tyr	Val
		355					360					365			

Asn Ser Ala Val Asn Pro Ile Ile Tyr  
370 375

<210> 77  
<211> 164  
<212> PRT  
<213> Homo sapiens

<400> 77  
Gly Asn Ala Val Met Leu Trp Leu Leu Gly Phe Cys Met His Ser Asn  
1 5 10 15  
Thr Phe Ser Leu Tyr Ile Leu Asn Leu Ala Arg Ala Asp Phe Leu Cys  
20 25 30  
Thr Cys Phe Gln Ile Ile Thr Phe Ile Asn Phe Phe Ser Asp Phe Val  
35 40 45  
Ser Ser Leu Ser Ile His Phe Ser Arg Phe Val Thr Thr Val Leu Phe  
50 55 60  
Ser Ala Cys Ile Thr Gly Leu Ser Met Leu Ser Thr Ile Ser Thr Glu  
65 70 75 80  
His Arg Leu Ser Val Leu Trp Pro Ile Trp Tyr Cys Cys His Cys Pro  
85 90 95  
Thr His Leu Ser Ala Val Met Cys Val Leu Leu Trp Ala Leu Ser Leu  
100 105 110  
Leu Gln Ser Ile Leu Glu Trp Met Phe Cys Ser Phe Leu Phe Ser Asp  
115 120 125  
Val Asp Ser Asp Asn Trp Cys Gln Ile Leu Asp Phe Leu Thr Ala Val  
130 135 140  
Trp Leu Ile Phe Leu Ser Val Val Leu Cys Gly Phe Thr Leu Val Leu  
145 150 155 160  
Leu Val Arg Ile

<210> 78  
<211> 129  
<212> PRT  
<213> Homo sapiens

<400> 78  
Met Thr Glu Phe Leu Leu Gly Gln Pro Phe Phe Leu Tyr Gly Asn Ile  
1 5 10 15  
Ser Pro Met Tyr Phe Phe Leu Leu Ser Asp Ser Pro Lys Met Val Asp  
20 25 30  
Leu Thr Ile Ser Cys Met Gln Leu Phe His Glu Leu Met Ala Asp Arg  
35 40 45  
Tyr Val Ala Ile Cys Lys Pro Leu His Tyr Ile Met Cys Trp Gly Gly

50					55					60					
His 65	Gln	Pro	Phe	Cys	Gly 70	Pro	Asn	Ile	His	Cys 75	Asp	Pro	Leu	Leu	Leu 80
Ala	Cys	Thr	Gly	Val 85	Asn	Ser	Gly	Phe	Leu 90	Ser	Tyr	Leu	Ser	Leu 95	Ser
Glu	Lys	Ala	Leu 100	Ser	Thr	Cys	Ser	His 105	Val	Val	Leu	Phe	Phe 110	Pro	Cys
Phe	Tyr	Pro 115	Asp	Lys	Ala	Phe	Ile 120	Pro	Leu	Asn	Pro	Ile 125	Tyr	Thr	Lys
Arg															